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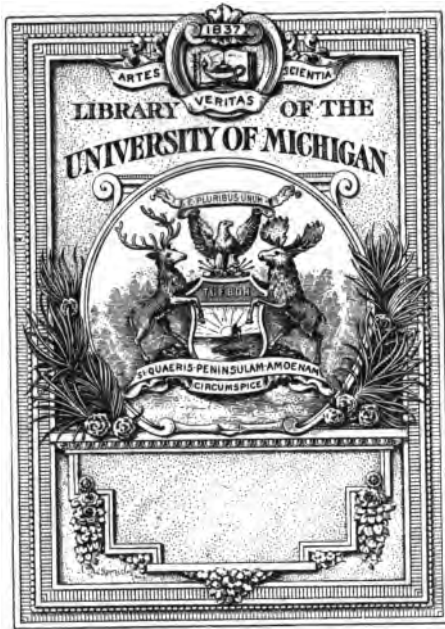
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SEVENTH ANNUAL REPORT
OF THE
STATE BOARD OF HEALTH
OF
VERMONT

FOR THE YEAR ENDING AUGUST 31, 1893.

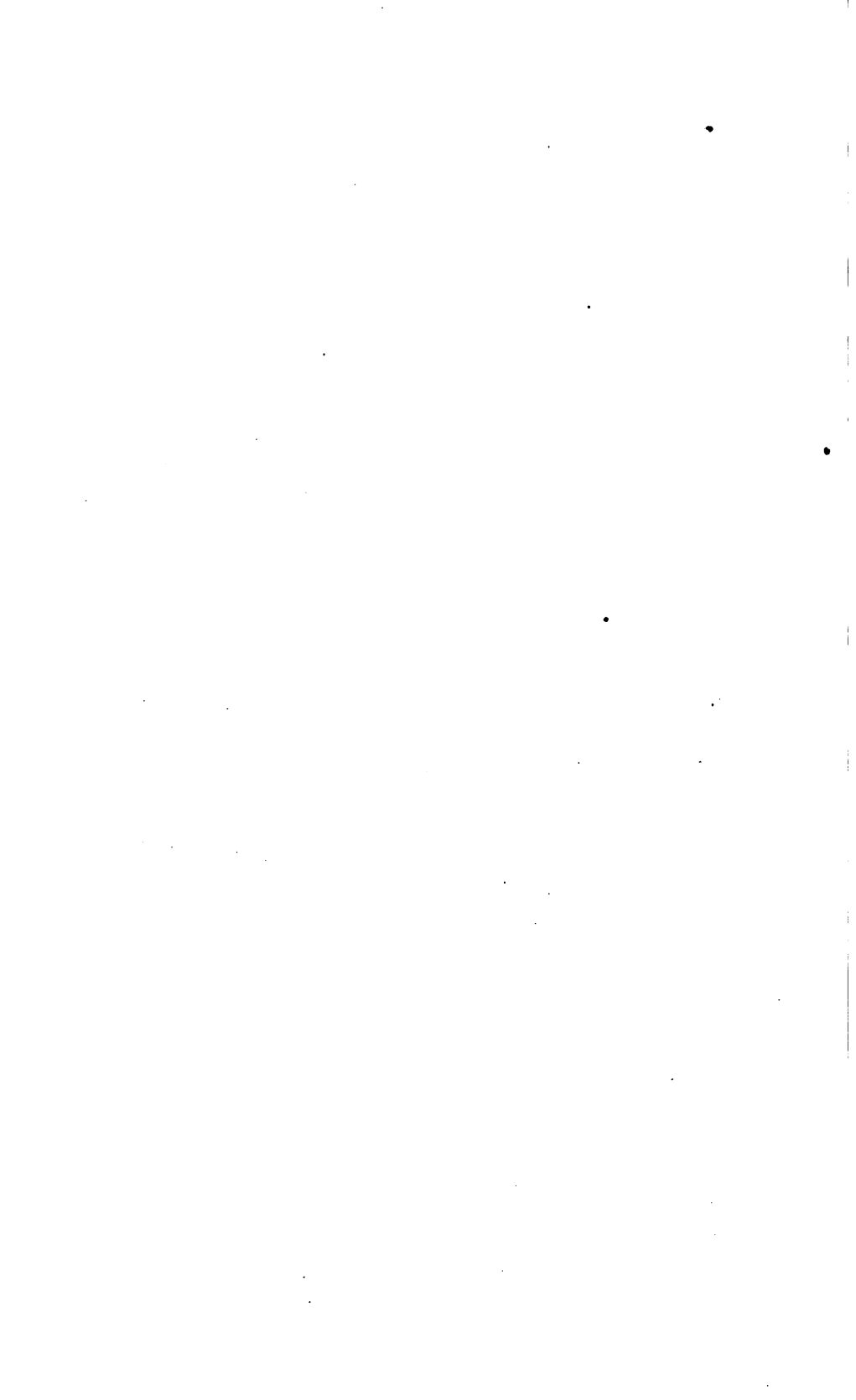




THE GIFT OF
State board health

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SEVENTH
ANNUAL REPORT

— OF THE —

SECRETARY

— OF THE —

STATE BOARD OF HEALTH

— OF THE —

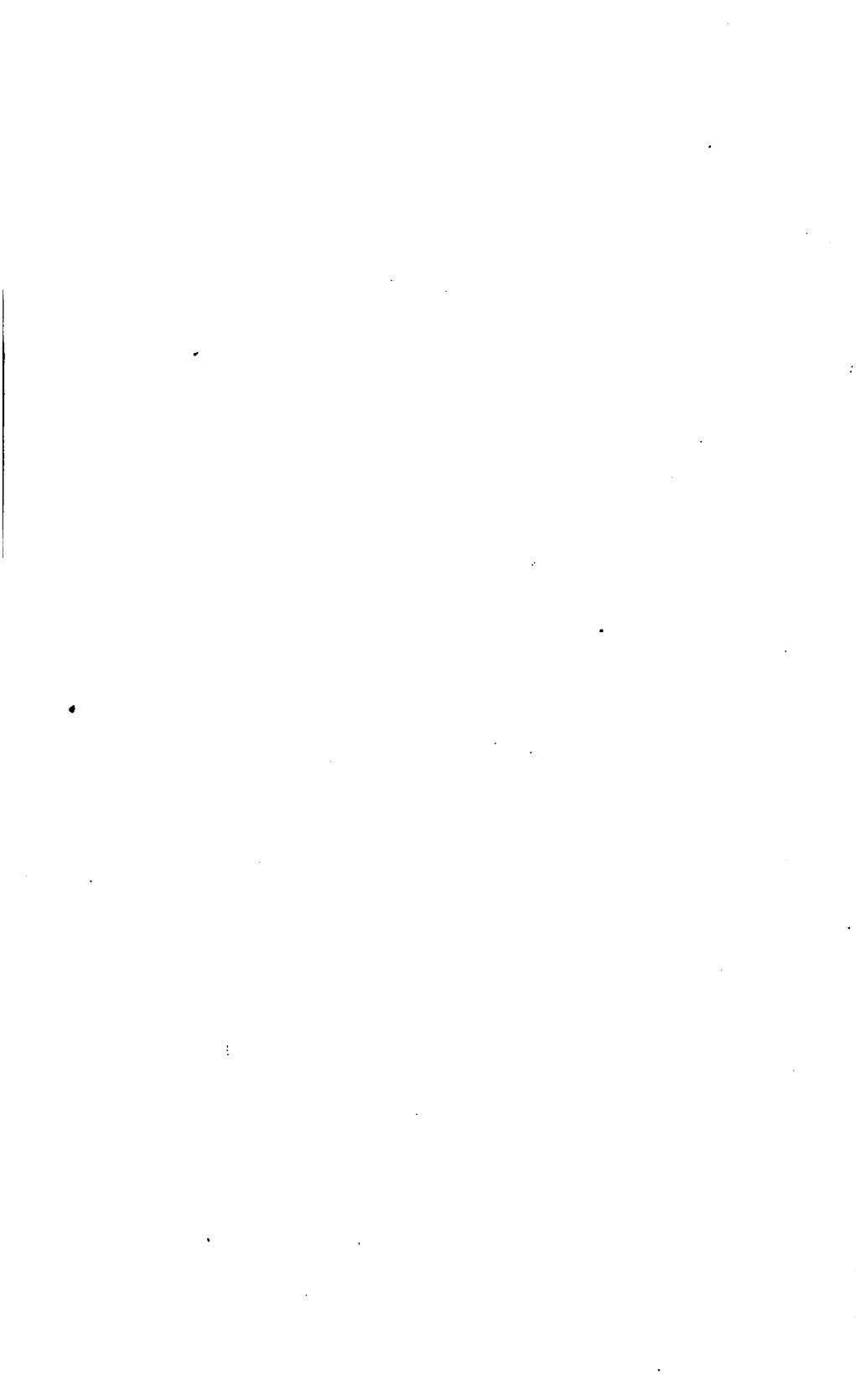
STATE OF VERMONT

— FOR THE —

YEAR ENDING AUGUST 31st, 1893.



RUTLAND:
THE TUTTLE COMPANY, OFFICIAL PRINTERS.
1893.



STATE BOARD OF HEALTH.

OFFICE OF THE SECRETARY,
RICHFORD, September 1st, 1893. }

To His Excellency,

LEVI K. FULLER, *Governor.*

SIR:—I have the honor of submitting to you the Seventh Annual Report of the State Board of Health for the year ending August 31st, 1893.

Very Respectfully,

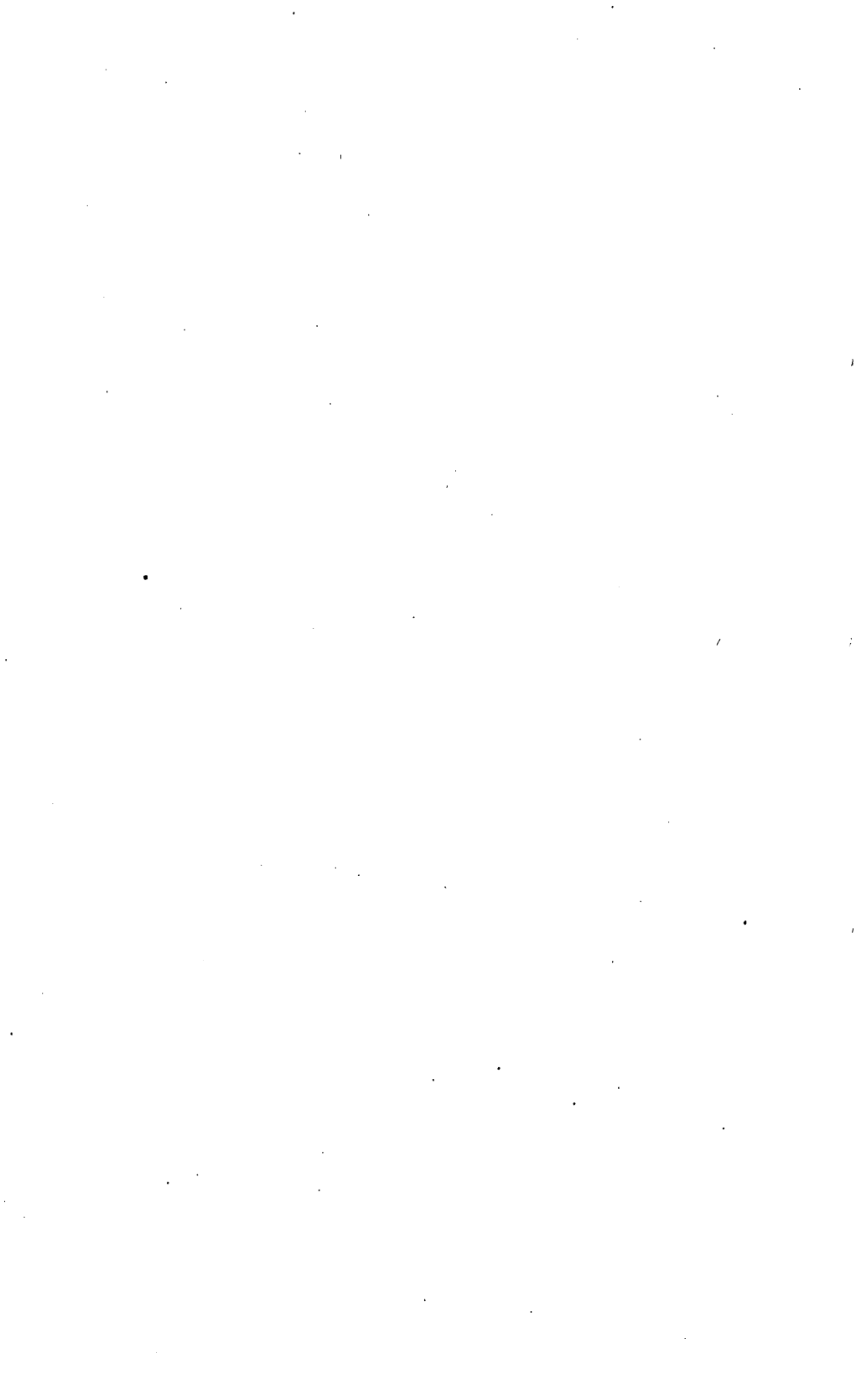
J. H. HAMILTON, *Secretary.*

MEMBERS OF THE BOARD.

	TERM EXPIRES.
DR. O. W. SHERWIN, Woodstock, - - - -	1898.
DR. C. S. CAVERLY, Rutland, - - - -	1896.
DR. J. H. HAMILTON, Richford, - - - -	1894.

OFFICERS OF THE BOARD.

DR. C. S. CAVERLY, *President.*
DR. J. H. HAMILTON, *Secretary.*



GENERAL REPORT.

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The State is to be congratulated upon the advancement made by the legislature of 1892, in its "Public Health Laws." At each biennial session since 1886, when the board was organized, an attempt has been made to amend the act so as to render it more efficient.

The act of 1886 gave the board little more than advisory power, and for six years all work has been done under great disadvantage, yet much good has been accomplished by the issuing of circulars and instructions to the people regarding the dangers from unsanitary surroundings, and the precautions to be taken in case of contagious and infectious diseases.

The amended law gives the board power to promulgate more stringent Rules and Regulations, and also what was lacking before—the authority to enforce them. The following is a copy of the law as amended:

NO. 93.—AN ACT TO PREVENT THE SPREADING OF CONTAGIOUS DISEASES AND TO ESTABLISH A STATE BOARD OF HEALTH.

SECTION.

1. Members, how appointed and their term of office; vacancies, how filled.
2. Meetings and organization of the board; appointment of secretary; his term of office.
3. Duties of board.
4. Shall meet biennially at Montpelier, and at such other times and places as the board shall judge the public

SECTION.

- health may require; duties of the secretary.
5. Compensation of members and secretary; proviso.
6. Board empowered to enforce regulations for the preservation of the public health; penalty for failure to comply with regulations.

It is hereby enacted by the General Assembly of the State of Vermont:

SECTION 1. The governor, by and with the advice and consent of the senate, shall appoint three persons as members of a State Board of Health for the State of Vermont. The term of office of said members of said board shall be so arranged that the term of one of them shall expire at the end of every second year. Vacancies in said board shall be filled as they occur by appointment of the governor, and confirmation by the senate when next in session.

SEC. 2. The members of said board first named in said appointment shall call a meeting of said members immediately after notice of said appointment shall be received by said members, and said

board shall meet within six days after said notice, at the time and place designated in said call, and said board shall organize by electing one of their number to be president of said board, and the board shall also appoint a secretary, who shall be a reputable practicing physician of this State, and if not one of the members of said board by appointment he shall be a member of the board by virtue of his appointment of secretary. The said secretary shall hold his office until said board shall appoint another secretary, and he shall be the executive officer of said Board of Health.

SEC. 3. The board shall take cognizance of the interests of life and health among the inhabitants of the State; shall make or cause to be made sanitary investigations and inquiries respecting causes of disease, especially of epidemics, and the means of prevention; the sources of mortality, and the effect of localities, employments, habits, and circumstances of life on the public health. They shall also, when requested, or when in their opinion the sanitary interests of localities [demand], advise with municipal officers with regard to the location, drainage, water supply, heating, and ventilation of public buildings and the drainage and sewerage of towns and cities.

SEC. 4. The board shall meet biennially on the second Tuesday of the session of the legislature at Montpelier, and at such other times and places as in the judgment of the board the public health may require, and also whenever the public safety of the people or the stock and domestic animals of the State shall require. The secretary, as executive officer of the board, shall superintend the performance of the work prescribed in this act, and shall perform such other duties as the board shall direct. He shall also respond to the invitations of boards of selectmen of the several towns or the mayor of a city, in case of epidemics, contagious diseases or other unusual sickness, by visiting the locality, or in such other way as may be deemed best; he shall render the secretary of State any necessary assistance in preparing for publication the annual registration reports required by law relating to births, deaths, and marriages in the State, and he shall make report to the governor on or before the first day of September in each year of the investigations, discoveries, and recommendations of the board, which report shall be printed and distributed as soon as practicable thereafter in the same manner as other public documents of the State.

SEC. 5. The compensation of members of the board shall be five dollars per day and actual expenses while in discharge of their official duties, and the governor and auditor of accounts may allow to the secretary of said board such additional sums for services as secretary, or for services in times of extraordinary peril, as seem to them reasonable, provided the whole expense of the board, including the secretary, for services rendered and all expenses incurred shall not exceed one thousand five hundred dollars in any year, except in some extraordinary public peril, in which case the governor may order said board to do and perform service for the safety of the State and her people in excess of said sum, but never to exceed the sum of two thousand five hundred dollars in all in any one year.

SEC. 6. This board shall have authority to promulgate and enforce such regulations for the better preservation of the public health in contagious and epidemic diseases as they shall judge necessary; and any person or persons or corporation neglecting or refusing, after having been duly notified in writing, to comply with the requirements of such regulations shall, upon conviction thereof, pay to the treasurer of the State a fine of not less than twenty-five dollars nor more than one hundred dollars, said offense to be prosecuted for before any court of competent jurisdiction in the State.

SEC. 7. This act shall take effect from its passage.

Approved November 23, 1886.

No. 82.—AN ACT DEFINING THE DUTIES AND POWERS OF STATE AND LOCAL BOARDS OF HEALTH, HEALTH OFFICERS AND OTHERS.

It is hereby enacted by the General Assembly of the State of Vermont:

SECTION 1. The State Board of Health shall appoint a health officer for each city, town and incorporated village in the State, and shall give him a certificate signed by the secretary of the board.

SEC. 2. These health officers, together with the selectmen of the towns, aldermen of cities, and trustees or bailiffs of incorporated villages shall be called, and shall act as local Boards of Health with duties hereinafter assigned.

SEC. 3. The health officer shall be secretary and executive officer of the local Board of Health and shall hold office for three years, and until another is appointed, unless he resigns or is removed for proper cause. In case of a vacancy from any cause, the State Board of Health shall have power to fill the same.

He shall in conjunction with other members of the board make sanitary inspections whenever and wherever he has reason to suspect anything existing which may be detrimental to the public health. He shall have authority to enter any house or other building and any premises where he has reason to suspect anything exists which is, or may become, detrimental to the public health. He shall, as executive officer of the local board, give a written order for the destruction, prevention or removal, within a certain specified time, of all nuisances, sources of filth or causes of sickness.

Anyone neglecting or refusing to comply with a written order of a health officer shall be subjected to a fine of not less than five dollars. In case of such neglect or refusal, the health officer may prevent or remove any such nuisance, source of filth or cause of sickness, and the cost of such prevention or removal may be collected of the owner or occupant of premises where such nuisance, source of filth or cause of sickness exists.

SEC. 4. Local Boards of Health shall have authority :

A.—To abate all nuisances, destroy, prevent or remove all sources of filth or cause of sickness.

B.—To guard against the introduction of contagious or infectious diseases by the exercise of proper and vigilant medical inspection and control of all persons and things arriving in their respective towns or cities from infected places, whether within or without this State, or which for any cause are liable to communicate contagion.

C.—To require the isolation of all persons and things infected with or exposed to contagious or infectious diseases, and to provide suitable places for the reception of the same, and, if necessary, to furnish medical treatment and care for sick persons who cannot otherwise be provided for ; to prohibit and prevent all intercourse and communication with or use of infected premises, places or things ; and require, and if necessary provide, the means for the thorough purification, disinfection and cleansing of the same before general intercourse therewith, or use thereof, shall be allowed. They shall have authority to call on sheriffs, constables and the police, whenever it may be necessary to have assistance in the proper discharge of their duties.

SEC. 5. It shall be the duty of every local Board of Health to report to the secretary of the State Board of Health every case of small-pox, varioloid, Asiatic cholera, typhus fever or yellow fever occurring within its jurisdiction, to provide whenever it is deemed necessary by the State Board of Health, a suitable supply of vaccine virus of a quality and from a source approved by the State Board of Health, and during the existence of an actual outbreak of small-pox in any town or city, the local Board of Health shall at all times provide thorough and safe vaccination for all persons within its jurisdiction who may need the same.

SEC. 6. Any householder in whose dwelling there shall occur a case of infectious or contagious disease, dangerous to the public health, shall immediately give notice to the health officer. Any physician who knows or suspects that any person to whom he has been called is sick, or has died, of any communicable disease, dangerous to the public health, shall at once report to the health officer the place where such case exists, the name, degree of virulence and cause or source of the disease, as far as these things are attainable.

Any householder or physician failing to give timely notice to the health officer of the existence of such disease, shall be subject to a fine of not more than ten dollars for every such offense.

SEC. 7. The health officer shall, upon receiving notice of any case of infectious or contagious disease, dangerous to the public health, investigate far enough to determine, if possible, the source or cause of the disease ; he shall institute means of prevention or restriction in the name of the local board, and shall immediately report all the facts to the secretary of the State Board of Health.

Whenever a communicable disease is prevailing to any considerable extent, more than usual, or becomes epidemic, he shall make to the secretary of the State Board of Health weekly reports concerning that disease during its continuance. And once each year, during the month of August, he shall make to the secretary of the State Board of Health a general report of the sanitary condition and public health of his town.

For each report to the secretary of the State Board of Health of contagious disease, he shall be paid fifteen cents; and for each annual report he shall be paid one dollar; each to be paid by the treasurer of the town or city.

For sanitary inspections and services in general, he shall receive such compensation as the local board shall deem just and reasonable.

SEC. 8. The bodies of persons dead of small-pox, Asiatic cholera, typhus fever or yellow fever, as soon as the evidences of death are conclusive, must be wrapped in a sheet saturated in a solution of a half pound of chloride of zinc in a gallon of water, or a solution of bi-chloride of mercury of not less than two per cent strength, enclosed in a proper coffin or box, and buried immediately, with as little publicity as possible.

Such bodies shall not be allowed to be put into any hearse or public vehicle, and shall not be removed from town to town, or be brought into the State.

The bodies of those who have died of diphtheria or scarlatina shall be buried with as little delay and publicity as possible.

But these latter bodies may be removed and transported, provided that the bodies be prepared as before, and incased in an air-tight zinc, copper or lead lined coffin or in an air-tight iron casket, and enclosed in a strong wooden box, the space between the coffin and the outside box being filled with sawdust saturated with one of the before mentioned solutions; provided also that the health officer gives a certificate with the cause of death clearly stated, and the undertaker gives an affidavit as to how the body has been prepared and encased, and the health officer of the town or city to which the body is consigned shall give consent to its receipt.

Any person violating the provisions of this section shall be subject to a fine of not less than ten dollars, nor more than fifty dollars.

SEC. 9. The performance of duty of local boards, health officers and others may be enforced by a writ of mandamus at the instance of any member of the State Board of Health.

SEC. 10. The secretary of the State Board of Health, State's attorney in the several counties or town grand jurors in the several towns, upon complaint made to them, shall prosecute for violations under this act.

SEC. 11. Section 6 of Act number 93 of the acts of 1886 entitled, "An Act to prevent the spreading of contagious diseases and to establish a State Board of Health," approved November 23, 1886, is hereby amended by inserting in the third line of such section after "contagious and epidemic diseases" these words, "also regarding the causes which tend to their development and spread."

SEC. 12. The secretary of the State Board of Health shall prepare and send to the health officers suitable blanks upon which to return to him reports of infectious and contagious diseases, and also blanks for physicians to make reports to health officers, and shall include therein questions to be answered, when necessary to give said secretary the information he desires, and in special cases the secretary may require special information of a health officer not provided for in the blanks so furnished.

SEC. 13. The governor of the State is hereby authorized and empowered in case of danger of invasion of cholera, small-pox or any other infectious or contagious disease to institute and enforce quarantine regulations against any State or country as he shall deem necessary; and may authorize and empower the State Board of Health to make and enforce such quarantine regulations against any State or country as they shall deem necessary, and any person or persons or corporations neglecting or refusing to comply with either or any of such regulations shall be subject to a fine of not less than five nor more than one hundred dollars.

SEC. 14. All acts or parts of acts inconsistent with the foregoing provisions are hereby repealed.

SEC. 15. This act shall take effect from its passage.

Approved November 22, 1892.

BURLINGTON, November 30, 1892.

I hereby certify that the foregoing is a true copy.

Attest,

CHAUNCEY W. BROWNELL,

Secretary of State.

The Seventh Annual Report of the State Board of Health, like former ones, represents only in a small degree the real progress made in the sanitary work of the State. It is hoped, however, that there will appear that advancement which might be expected with the increased advantages conferred by the revised law of 1892. Only sufficient of the actions of the board are recorded to indicate in some degree the progress made. It is evident that the people of Vermont are becoming more fully aware of the existence of the State Board of Health. This is shown by the increased demand for assistance and advice in sanitary matters.

Members of the board have been called upon individually to investigate complaints from different parts of the State, and in most cases where any real evils have existed, they have been successful in removing the difficulty in such a way as could not otherwise have been accomplished.

The secretary being executive officer of the board, received more frequent calls of this sort than the other members.

The result of this work would be interesting in only a small number of cases, as the majority of calls upon the State board have grown from a difference of opinion in neighborhoods.

Under the law as amended selectmen of towns, trustees or bailiffs of incorporated villages and aldermen of cities are constituted local Boards of Health, and the health officer appointed by the State board is secretary and executive officer of this local board.

Health officers have been appointed in each town. In towns where there are incorporated villages the same appointment is made good for both, and in some instances one man is appointed for two or more towns, so the whole number of health officers is 199.

Blanks have been prepared and forwarded according to section 12 of act 82 of the acts of 1892 for the convenience of health officers and uniformity in making returns to this office. Also a uniform blank has been adopted for the report of the physicians to the health officers; these have been forwarded to the health officers for distribution. Physicians as a rule have reported faithfully, although in a few instances the matter had to be brought to their attention by a process of law.

Section 6 of the health laws of 1886 was so amended by the legislature of 1892, that the State Board of Health has authority to act not only in case of contagious and epidemic disease, but now may promulgate and enforce rules also regarding the causes which tend to their development and spread.

There is no better provision in the laws than that giving health officers authority to abate nuisances and enforce quarantine regulations.

Health officers have done most efficient work in the performance of their duties. The State board has been most materially aided by their hearty co-operation and the result has been to prevent many an invasion of contagious diseases becoming epidemic. The saving of life most surely has not been small.

During no other period since the creation of the board has its work and advice been so frequently demanded as during the last

year, not because of increased necessity, but because the people are becoming more conversant with sanitary matters.

La grippe has prevailed to some extent during the fall and winter months, while not so extensively as in previous years, yet with greater fatality.

Diphtheria and scarlet fever have appeared in many localities, but restrictive measures have in every case been promptly adopted with the most gratifying results in checking the invasion of these dread diseases.

Typhoid fever, although not widespread, will show more cases and deaths than for many years before. The reasons for this will appear in the special report on typhoid fever.

Health officers have been in most instances prompt in reporting to the secretary of the State board all outbreaks of infectious and contagious diseases, as reported to them by physicians, as will be seen in their reports given elsewhere in tabulated form. This table, though far from complete, will give the observer some idea of the prevalence of this class of diseases in the various localities of the State. We have every reason to hope and expect that the future will show a great improvement in this respect, for the last two months have brought more reports than the first ten of the year.

The annual reports from the health officers, as provided in section 7 of act No. 82 of the acts of 1892, have been received from each officer in the State, with ten exceptions. No reports were received from the officers at Dorset, Highgate, Eden, Pittsford, Sherburne, Wells, Middlesex, Waitsfield, Whitingham and Sharon. These annual reports may be found in this volume.

Local boards have in most instances adopted the rules and regulations recommended by the State board and have promulgated rules and regulations of their own. Copies of some of the forms adopted by the local Boards of Health for the abatement of nuisances, etc., are appended to the annual reports of their health officers.

It is advisable that all towns follow the same general plan. In Bennington, where the good results of sanitary legislation can be as readily seen as in any town in the State, a copy of the law and of circular No. 10 accompanies every order of abatement, and this with the very best results.

WATER.

The people of Vermont are taking a greater interest in the water supply furnishing water for drinking purposes. Especially is this true in the larger towns and villages.

Many of the villages are supplied with water from rivers and lakes, which are also receptacles for sewage, rendering them more or less prolific means of transmitting typhoid fever.

Carelessness in matters of water supply and drainage is notably much more common in the country than in cities and towns, therefore it is not uncommon to find an outbreak of typhoid due to the use of water from the farmer's well. Convenience, of course, requires that it be reasonably near the house and barn, and if it supplies clear and cool water its mission is considered fulfilled.

Water that, so far as sight, taste and smell can judge, is absolutely pure may be loaded with germs of disease.

DIPHTHERIA.

Diphtheria has not been so prevalent as in years past, yet it will be seen from the reports of health officers that the State is far from free of this disease.

The general falling off in amount of diphtheria is due to the stringent measures adopted by local Boards of Health and health officers for its restriction.

In a few instances health officers have had difficulty in enforcing their orders—placards have been torn down and quarantines disregarded, but since under the revised law the officers have the authority to *compel* compliance with health laws they find much less resistance, and in no case has prosecution been necessary.

PULMONARY CONSUMPTION.

Consumption is the cause of more deaths than all of the other contagious diseases combined, yet little or no precautions are taken looking toward its prevention.

If proper attention were given the matter the mortality rate might be greatly diminished.

So long as the unfortunate victims of pulmonary tuberculosis are allowed to mingle indiscriminately with the rest of mankind, without using such means as are at command to destroy the tubercle bacilli which are present in the sputum and the cause of infection in all cases of contagious phthisis, so long I say as this is tolerated, consumption will do its work of destroying human life.

SMALL-POX.

Small-pox is occasionally imported into the State, but so infrequently as to give little or no cause for anxiety.

During the last year only two cases have occurred and those of the modified form, or varioloid.

The origin of the first case was tracable to exposure to an outbreak of the disease in some town in New Jersey.

The second case contracted small-pox from the first. Here, by the prompt action of the health authorities, the disease was stamped out.

SEWERAGE AND DRAINAGE.

How to dispose of sewage in villages with no public water supply is a problem yet unsolved, as it also is in incorporated villages having no ordinance compelling citizens to connect their property with the main sewer pipes.

This should be remedied by proper legislation.

SCARLET FEVER.

Scarlet fever has been more than usually prevalent, but mostly of a very mild type—only a few deaths being reported.

Restrictive measures have been adopted so that no extensive epidemic has existed.

TYPHOID FEVER.

Typhoid fever has been reported from only a few towns, but in three or four towns there has been an immense number of cases and deaths, the cause being tracable to pollution of drinking water in nearly every instance.

The town of St. Johnsbury has been especially unfortunate in this respect, having had more cases and more deaths from this disease than have all other towns in the State combined. Here the cause is drinking impure water, as may be seen in the annual report of Dr. Bullard, health officer of St. Johnsbury.

CONTINUED FEVER.

Continued fever has not been extensively reported to the health officers by physicians.

MEETING OF THE BOARD.

At the call of the president of the State Board of Health a meeting was held at the Van Ness House, Burlington, Sept. 12th, 1892.

There were present Governor C. S. Page, Governor-elect Levi K. Fuller, reporters of the Free Press and Boston Journal; also Dr.

C. F. Branch of Newport, medical inspector. All the members of the board were present. The principal business of the meeting was the consideration of the best means to be adopted by the governor and State Board of Health to prevent the introduction of cholera into the State.

Governors Page and Fuller discussed the matter very fully and promised to aid the board in every way possible in the event of an emergency.

The secretary reported the outbreak of scarlatina in the town of Jericho, explaining fully the situation and complaints regarding the continuance of schools.

The secretary was instructed to notify Professor Cilley not to reopen his school until all danger was passed.

Adjourned *sine die*.

J. H. HAMILTON, Secretary.

SECOND MEETING—BIENNIAL.

Agreeable to sec. 4 of act No. 93 of the acts of 1886, establishing the State Board of Health, the board met at Montpelier on the second Tuesday of the session of the legislature, Oct. 18th, 1892.

The business of the meeting was the drafting of a bill to present to the legislature amending the public health laws as adopted in 1886.

The matter was fully discussed and drafts made, and the secretary was instructed to complete same and attend to its presentation before the legislature.

The secretary read a communication from the secretary of the conference of State Boards of Health, giving notice of the assessment of the board for the expenses of the inspection of quarantines made by the interstate commission.

The bill was approved by the board, and the secretary instructed to notify the governor of their action.

Adjourned.

J. H. HAMILTON, Secretary.

THIRD MEETING.

The board met at Town's Hotel, Bellows Falls, Dec. 30th, 1892, at the call of President Caverly. The members of the local boards were present, bailiffs and selectmen.

The question of local boards created by virtue of village and city charters being in conflict with the boards as formed under the revised health laws of the State was discussed at some length by all present.

It was generally concluded that the latter act took precedence.

It was directed by the board to make the appointments of health officers in incorporated villages and cities the same as might be appointed by local boards.

A report of hog cholera in Springfield, Vt., by the cattle commissioners, Mr. Viall and Mr. Winslow, as per recommendation of the governor, was read, and was approved by the board.

In accordance with this report, the secretary was instructed to report to the governor that nothing was found requiring interference by the State Board of Health for the protection of the public health.

Adjourned.

J. H. HAMILTON, Secretary.

FOURTH MEETING.

The board met at the Van Ness House, Burlington, May 1st, 1893. Members present, President Caverly and Secretary Hamilton. The meeting had been called in part to consider the charges preferred against Dr. M. D. Smith, health officer of Middlebury, by Dr. Martin and others of Middlebury. Dr. Smith had been notified of the charges, and that a hearing would be held at this time. Dr. Martin had also been informed that the meeting would be held for the purpose of considering his complaints.

Dr. Smith appeared with gentlemen to assist in stating his side of the case, while Dr. Martin nor any one else appeared against Dr. Smith.

Mr. Bliss of Middlebury came before the board and presented the case. He read affidavits regarding the death of Arthur W. Rogers from Dr. Parker of Cornwall, Edward C. Rogers, Elias J. Rogers, Geo. W. Pinney, Dr. E. P. Russel, Wm. W. Cushman, W. H. Farrell, Chas. M. Wilds. He brought the following gentlemen before the board to testify in the case: Dr. Smith himself, Mr. Albert Fletcher and Drs. Bogue and Kent.

Mr. Bliss filed with the secretary a technical denial by Dr. Smith of the charges preferred against himself by Dr. Martin. Mr. Bliss also placed in the secretary's hand an answer to these charges.

The matter was laid on the table, and the board proceeded with routine business, considering first the question of disposal of fecal matter from closets of passenger cars.

Next was brought up the question of inspection of baggage on the border. It had come to the secretary's notice that baggage

coming from cholera infected districts was allowed to pass customs inspection without bearing proper certificates of disinfection. The secretary was instructed to act for the board in laying this matter before the customs officials.

The board then considered the law giving the governor power to establish quarantine, etc., in case of special danger. They decided that this was a time that all should be on their guard, and the secretary was instructed to confer with the governor on the subject, that there might be no delay in an emergency. Then, in private session, the case of Dr. Smith was again considered. The board decided that the charges brought against him were not substantiated, and that Dr. Smith deserved full vindication from the board.

Meeting adjourned.

J. H. HAMILTON, Secretary,
per J. M. H.

FIFTH MEETING.

Pursuant to a call of the president, the board met at the Van Ness House, Burlington, June 13, 1893.

The principal business of this meeting was planning the work for the season.

Adjourned.

J. H. HAMILTON, Secretary.

SIXTH MEETING.

Meeting at St. Johnsbury, July 7th, 1893.

The meeting was called by President Caverly, at the request of Dr. Bullard, health officer of St. Johnsbury, for the purpose of investigating the cause of great prevalence of typhoid fever.

Were driven by Dr. Bullard to the point of first outbreak of the disease, which was about a mile above the intake or pumping station. The water is pumped from the river, and the first cases were not more than 20 feet in some instances from the water's edge. There were two cases in the first house, one in the next, four in the next, two in the next and two in the next. These all occurred in August, 1892. All slops and privy filth ran into the river, and in one instance a woman in one of the houses did the washing during the winter of 1892-'93 for families where typhoid fever existed, and all slops were thrown into the river. After making inspection in the morning a meeting was held in the board of trade rooms, and

the result was stated to the meeting by Dr. Sherwin. Many questions were asked by those present.

Meeting adjourned.

J. H. HAMILTON, Secretary.

On July 7th the secretary made the following report and recommendations to the health officer and local Board of Health of St. Johnsbury :

The State Board of Health find, from investigation made as to cause and prevalence of typhoid fever in St. Johnsbury, that, while other causes may contribute to some degree, polluted drinking water is the principal cause.

The evidence points so strongly in this direction that we should deem it criminal negligence on our part not to so report, and recommend the discontinuance of the use of the water supply, known as the "river water supply," for drinking purposes, unless the water has been first boiled. To cool the water it should be put in refrigerators surrounded by ice, rather than by putting the ice *into* the water, as the ice supply is from the same polluted source.

SEVENTH MEETING.

At the call of the president the board met at the Pavilion, Montpelier, Aug. 3d, 1898. Present were: Dr. Caverly, president; Dr. Sherwin and Dr. Hamilton, secretary; Dr. Lazelle, health officer of Plainfield; Dr. Kemp, health officer of Middlebury; also John A. Center, attorney, Montpelier.

Dr. Lazelle reported a slaughter house nuisance in Plainfield, and asked the advice of the board.

The "Rules and Regulations," as issued in Circular No. 5, were found to be inefficient and inoperative in this case; therefore new ones were formulated and ordered to be printed, as Circular No. 10, for future guidance. The board recommended that in the present instance no other course could be pursued than to place the matter in the hands of the State's attorney for prosecution.

Adjourned.

J. H. HAMILTON, Secretary.

The following is a copy of the decision of the circuit court of the United States, State of Michigan, which is of equal interest to our own State:

CIRCUIT COURT OF THE UNITED STATES, WESTERN
DISTRICT OF MICHIGAN.

MINNEAPOLIS, ST. PAUL & S. STE.
MARIE RAILWAY COMPANY

vs.

SAMUEL G. MILNER ET AL., Members
of, and constituting the State Board
of Health of Michigan.

On motion for a preliminary injunction.
Before Judges Severens and Sage.

The bill sets forth that the complainant, a corporation of the State of Michigan, is and has been for several years past, engaged under a traffic arrangement with the Canadian Pacific Railway Company in the transportation of passengers on through tickets from Quebec westward, through Canada and over the line of the complainant's railway, to and through the States of Michigan, Wisconsin, Minnesota and North Dakota, also eastward from those States, through Canada to Quebec, a large portion of the passengers westward being persons traveling from Norway and Sweden to points in said States.

The defendants, it is averred, constitute the State Board of Health of Michigan, acting under an act passed by the legislature of said State and approved June 20, 1885, entitled "An act to provide for the prevention of the introduction and spread of cholera and other dangerous communicable diseases, as amended by an act approved April 25th, 1893." The bill has attached to it as exhibits a copy of such of said acts, and of certain rules adopted by said board, purported to be issued under and by virtue of the authority conferred by said amendatory act. It is further averred that said board, acting through its secretary and one of its inspectors and in pursuance of said rules, is daily detaining and attempting to detain passengers on said Canadian Pacific Railway at the point opposite Sault Ste. Marie, Michigan, and prohibiting their entering the State of Michigan until they have undergone the quarantine detention and until the disinfection of their baggage as prescribed in said rules. It is averred that this detention, examination and process of disinfection of baggage is applied to all emigrants irrespective of whether they came from an infected or healthy locality abroad and without regard to their point of destination. It is further averred that all of said emigrants and travelers have been, before said detention, inspected by United States officials detailed for said purpose and that complainant has not received nor permitted to be conveyed within the State of Michigan any passenger, traveler or emigrant coming from any European port through the Dominion of Canada, excepting such as have presented a certificate of inspection of the United States inspector. It is also averred that said board is threatening to arrest officials and employees of complainant unless complainant shall submit to and comply with said requirements of said board.

The claim is that the rules and action of said Board of Health are in direct violation of section 8, article 1 of the constitution of the United States, in that they attempt to regulate and prohibit commerce with foreign nations, and that they are also in violation of the treaty made by and between the United States and Norway and Sweden and now existing; also that they are over, above and beyond the powers conferred upon said board by said act and amendatory act of the legislature of Michigan. The bill then sets forth averments of irreparable damages and prays for an injunction.

The motion for a preliminary injunction will be overruled for the following reasons:

1. In *Brown vs. Maryland*, 12 Wheaton, 418, 433, Chief Justice Marshall recognized that the removal or destruction of infectious or unsound articles was undoubtedly an exercise of the police power of the State, and an exception to the prohibition resulting from the exclusive power of Congress to regulate the operations of foreign and interstate commerce, and he says that laws of the United States expressly sanction the health laws of the State. In the license cases, 5 Howard, 504, 576, Chief Justice Taney declares that it must be remembered that disease, pestilence and pauperism are not subjects of commerce, although sometimes among the attendant evils. They are not things to be regulated and trafficked in but to be prevented as far as human foresight or human means can guard against them. In *Ceatcher vs. Kentucky*, 141 U. S., 47, Justice Bradley refers to these cases with approval, and states with great clearness and force the distinction between the exercise of its police power by a State and an attempt to legislate upon matters of interstate or foreign commerce which are exclusively within the power of the Federal government. These authorities render it unnecessary to refer particularly to the cases cited for the complainant. It is sufficient to say that they all relate to State enactments concerning articles of commerce and thence are not applicable here. Moreover the quarantine act of Congress, approved February 15, 1893, expressly recognizes the validity of State laws, and in section 3 requires the supervising surgeon general of the marine hospital service to co-operate with and aid State and municipal Boards of Health in the execution and enforcement of their Rules and Regulations.

2. We find nothing in any existing treaty with Norway and Sweden which conflicts with the institution or enforcement by any one or more of the States of this Union of quarantine regulations.

3. We do not deem it necessary to express an opinion whether the provision of the Michigan statute, making it a misdemeanor to violate the rules of the State Board of Health adopted in pursuance of the act is constitutional or valid, for we should not, even if we were of opinion that it is unconstitutional, undertake to issue an injunction against criminal prosecution by the State. That the legislature might authorize the board to adopt rules is, we think, beyond question. Such rules are essential to the proper enforcement of the law.

4. To the objection that passengers from non-infected countries and localities are detained, the answer is that such detentions are in the nature of the case to a certain extent unavoidable; and passengers from such countries and localities may have become properly subject to detention by reason of having mingled with others who could communicate pestilence or disease to which they themselves had been exposed or subjected. An opportunity for separation is indispensable also.

5. The objection that passengers who had certificates from United States inspectors were detained is not tenable. The States may exercise their police power according to their own discretion and by means of their own officials and methods. The inconvenience resulting to emigrants and travelers from being halted and subjected to examination and detention at State lines is of trifling importance at a time when every effort is required and is being put forth to prevent the introduction and spread of pestilential and communicable diseases.

The costs and charges which are incurred in such quarantine inspection may lawfully be imposed on the railway company, as being incident to the business in which they are engaged. The costs of the motion will be taxed to the complainant.

H. F. SEVERENS,
GEO. R. SAGE.

July 29th, 1893.

CHOLERA RESTRICTION.

Report of Dr. H. B. Baker, one of the quarantine commissioners appointed by the International Conference of Boards of Health :

He says : The officers of the conference recognized the fact that to protect this country against cholera the first great effort should be made to exclude cholera by efficient quarantine at the seaboard, it being assumed that it could be stopped at the seaboard more easily than at any inland line or station. Accordingly the inspection commission was appointed, and has been vigorously at work, apparently to good purpose and with useful result, until now its members, who are executive officers of Boards of Health in their respective States and provinces, are called to work in their homes. As is well known, cholera is spread by the movement of infected persons and things. The spread of cholera can only be stopped by the restriction of the movement of infected persons and things, until they are completely disinfected. This at the seaboard might be called maritime sanitation, or, in the interior, inland sanitation, but in this country is usually called quarantine. Quarantine may be barbaric, but permitting cholera to spread without effort at its restriction is much more barbaric. Inspection, isolation and disinfection are the essential elements in the restriction of cholera, whether done at the seaboard or in the interior, whether on lines of

travel or in the homes of the people in cities or in country districts. Every person who has regard for the public welfare should respect such effort for the restriction of cholera. Confidence in quarantines—that is, in inspection, isolation and disinfection—should be fostered, whether the quarantine is at the seaboard or on lines of travel, or at the homes of the people. Disinfection is the same in one place as in the other.

With reference to cholera, a disease foreign to this country, extraordinary measures should be taken to keep it as distant as possible from the homes of the people, to prevent it from leaving its foreign home, or to stop it at the seaboard. Failing in this, the greatest possible effort should be made to stop its spread across the continent. The most perfect work possible at the seaboard can hardly be expected to be efficient against such a tremendous influx of immigrants from infected countries as has recently occurred at the Atlantic seaboard; but the inspection by the commission has demonstrated that the quarantines along the Atlantic coast are far from perfection; and it seems to be a fact that cholera has already gained admission to this country; therefore, inspection, isolation and disinfection of all persons and things likely to be infected is imperatively demanded on all lines of travel from our eastern seaboard. I do not think it well now to disparage inland quarantines. I have never done so. They may be defective; if so, they should be perfected. It may be difficult to maintain them, but they may supply our most important protection when once the disease is in this country. And it must be confessed that they are urgently needed so long as the protection at the seaboard is no better than it now is. It should be understood, however, that detention alone is not proper quarantine. Baggage to-day infected, unless disinfected, may still be infected twenty or forty days later. The recent order by the President was undoubtedly intended to stop the introduction of cholera by stopping immigration, and incidentally to insure sufficient time for more thorough work by quarantine officers, as well as to certainly cover the period of incubation of cholera in immigrants already on the way.

Just now the interests of Michigan (and of the northwest) seem to demand a thorough inspection of all immigrants before they enter this State; the exclusion and isolation of all found sick with cholera or diarrhea or sickness which may prove to be cholera; the disinfection of all baggage and luggage of immigrants, *without regard to what has occurred at the seaboard*. Cholera, having certainly entered this country at the seaboard, the methods there are certainly defective. The detention of such immigrants should be sufficient for such inspection and disinfection of all baggage and luggage.

Cholera having already occurred in New York, more emphasis should now be given to what I published before leaving home: "Especial care should be taken that the dangerous excreta of immigrants be no longer scattered along the rail of every railroad across the country. Provision should be made requiring and ensuring that all such excreta voided on board cars shall be received

in a strong disinfectant solution. As cholera is usually spread along lines of travel by those only slightly affected by the disease, the importance of these precautions cannot be overstated." It may be found necessary to stop the movement of all cars through and into Michigan unless complete provision is made for the disinfection of all excreta voided on board the cars. There could be provided on immigrant trains pails containing sawdust and a strong disinfectant, the pails to be removed, contents destroyed and other pails supplied at regular and not infrequent periods. Possibly the pails might be placed under the seats as now constructed. When cholera once gains a foothold in this country no car carrying passengers should be permitted to go out from an infected place without complete provision for the disinfection of vomited matters and other excreta.

I admit that the methods in this country for the exclusion of cholera are not yet perfect. After doing all that is possible to keep it out, work should be done to deal with it promptly in case it gets in. For some time the State Board of Health has received from the United States immigration officers the names, destinations and disease possibly exposed to relative to all immigrants through New York bound for settlement in Michigan. These notifications have then been forwarded to the several localities in Michigan in time for the local health officer to have the immigrants under surveillance. In some instances the disease notified has actually occurred, showing that the quarantine at the seaboard was not absolutely perfect. Possibly the same experience may be had with cholera. Heretofore we have received notices of immigrants through the port of New York only, and, although most immigrants come through there, we have wanted notices from all important ports. While in Washington I secured from Superintendent of Immigration Owen a promise that hereafter such notices shall be sent to us, and by telegraph in important instances, from Boston, New York, Philadelphia and Baltimore. This will enable the health officer of each city, village and township throughout Michigan to search out and to keep under surveillance immigrants likely to have been exposed to infection of cholera or other dangerous disease. I made effort to obtain such notifications from Canadian ports, but I have not yet positive assurance that they will be sent. It requires an order from the Dominion capitol at Ottawa.

In New York and in Boston the Board of Health has a large number of medical inspectors visiting tenement houses and places likely to harbor cholera to seek out cases of diarrhoeal disease likely to be cholera. Such methods are needed in large cities, and generally throughout Michigan the laws which require every case of dangerous communicable disease to be promptly reported to the health authorities should now be strictly obeyed; and the public safety should be given the benefit of any doubt, whether a case was or was not cholera. Better to report, isolate and disinfect in hundreds of cases unnecessarily than omit to act in a single genuine case, and thus let cholera spread.

After doing what may be done to keep it out, every one should act as if it were probable that cholera would be brought into this State either this year or next. Every place should be put in the best possible sanitary condition. All human excreta should be disinfected or cremated. All suspected water used for drinking or culinary purposes should first be boiled.

HENRY B. BAKER.

Office of the Secretary of the State Board of Health, Lansing,
Sept. 20, 1892.

CORRESPONDENCE.

BURLINGTON, Sept. 5, 1892.

DEAR DOCTOR—I find that the town of Colchester has not any health officer. I know from observation that Winooski village needs much sanitary improvement, especially at this period of cholera expected invasion.

I feel somewhat anxious about this matter, as Winooski lies so near our city and has a large foreign population.

Respectfully,

H. A. CRANDALL.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., Sept. 5, 1892. }

H. A. Crandall, M. D.:

MY DEAR DOCTOR—Your letter received, and I have appointed Dr. Burdick health officer, and asked him to co-operate with you in sanitary work. I was glad to see by the Free Press that you have called the attention of the city to the importance of sanitation. I sent to the printer Friday manuscript for circular, and shall ask to have it printed, as well as distributed to all towns in the State.

Very sincerely,

J. H. HAMILTON, Secretary.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL,
MARINE-HOSPITAL SERVICE,
WASHINGTON, D. C., September 2, 1892. }

Doctor J. H. Hamilton, Secretary State Board of Health, Richford, Vermont :

DEAR DOCTOR—In reply to your letter of the 29th ultimo, I have to state, what you have already probably learned from the papers, that medical inspectors have been appointed at several points in Vermont where immigrants can come through. Any information that you may send looking to the efficiency of the service within your State will be gladly received.

Respectfully yours,

WALTER WYMAN,

Supervising Surgeon-General, M. H. S.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE, RICHFORD, VT. }

Walter Wyman, Supervising Surgeon, etc. :

One car of merchandise from Hamburg arrived at this port from the north, via C. P. R. This car was held for certificate and the enclosed telegraphic correspondence relates thereto. As no certificate of disinfection was produced, goods were fumigated at Richford with No. 2.

Respectfully,

J. H. HAMILTON.

TELEGRAM 1.—Thirteen cases of merchandise from Hamburg to Boston via Montreal, Sept. 4th, are held at this port for certificates of disinfection. If such cannot be produced, you will cause same to be disinfected before it is allowed to proceed.

J. H. HAMILTON, M. I., M. H. S.

TELEGRAM 2.—One car, 13 cases of merchandise shipped from Hamburg since July 23d. Circulars 112, 141, M. H. S., include infected merchandise or merchandise from infected ports. I have no means of knowing in regard to this.

J. H. HAMILTON, M. I., M. H. S.

CANADIAN PACIFIC RY. Co.,
 SUPERINTENDENT'S OFFICE,
 MONTREAL, C., Sept. 12th, 1892. }

Dr. J. H. Hamilton, Richford, Vt. :

DEAR SIR—I have yours of the 8th ; will you please advise me just what you require in the way of facilities for the disinfecting of immigrant's baggage at Richford. An early reply will oblige.

Yours truly,

J. W. LEONARD, Superintendent.

J. W. Leonard, Superintendent C. P. R. :

DEAR SIR—In regard to disinfecting immigrants' baggage, etc., would say that your officials here can improvise sufficient apparatus to fumigate all suspicious material, if they are properly authorized by you. I shall be here and will superintend the work in person.

J. H. HAMILTON, Secretary.

MONTREAL, 13th September, 1892.

J. H. Hamilton, Richford :

Our advice from you only mentions immigrant's baggage requiring disinfecting and that rags will not be admitted at all. The 13 cars of merchandise do not come under either head. Reply.

J. W. L.

STATE BOARD OF HEALTH,
 SECRETARY'S OFFICE,
 RICHFORD, Sept. 10th, 1892. }

Prof. J. S. Cilley :

DEAR SIR—As secretary of the State Board of Health, I was called to Jericho to investigate the outbreak of an eruptive disease in the village, which I found to be scarlatina.

I would advise, therefore, that the schools be discontinued until all danger is passed. I have been instructed by the board to give this notice.

Respectfully,

J. H. HAMILTON, Secretary.

STATE BOARD OF HEALTH,
 SECRETARY'S OFFICE,
 RICHFORD, Sept. 10th, 1892. }

Dr. F. H. Cilley :

DEAR SIR—In view of the outbreak of canker rash in Jericho, I have advised the discontinuance of the schools in the village until all danger is passed. I would ask you to kindly look after this matter for the board.

Respectfully,

J. H. HAMILTON, Secretary.

JERICHO, VT.,
September 12, 1892. }

J. H. Hamilton, M. D., Richford, Vt. :

DEAR DOCTOR—The prudential committee of schools here wishes me to ask if it is safe to open the public school on Monday next.

There are no new cases (scarlatina), so far as my patients extend. The cases now sick will finish desquamation in about two weeks ; the two first cases, at the hotel, have not completed. Every doctor in town declares the cases not scarlatina. I have done all that I can in this matter without further authority.

Very respectfully yours,

G. W. BELDEN, M. D.

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION, }
PORT OF NEW YORK, N. Y., }
September 24, 1892. }

List of immigrants landed from vessels, who, either on the voyage or at time of arrival, have been infected ; also those arriving from ports where contagious diseases prevail :

Names, Marie Bartelett and two children, Maria Sicord and three children ; destination, Burlington ; arrived from Hamburg ; ship, Normannia ; disease prevailing in port or on ship, cholera.

Passengers of S. S. "Normannia," infected with cholera, were landed this day. All suspected cases were detained at Camp Low (U. S. Quarantine Station). The ship and baggage were fumigated. Those allowed to land were under observation at quarantine for twenty-one days.

JAS. B. WEBER, Commissioner.

To the Secretary, State Board of Health, Montpelier, Vt.

CUSTOM HOUSE, BURLINGTON, VT., }
COLLECTOR'S OFFICE, }
September 17, 1892. }

Dr. J. H. Hamilton, Medical Inspector, Richford, Vt. :

DEAR SIR—Dr. Linehan, medical inspector at Island Pond, raised the question whether it would not be a good idea for people coming from European countries, and landing at Canadian ports, bound for the United States, to present clean bills of health from the U. S. consuls at ports of departure, or certificates from local quarantine officers in Canada that they have passed the necessary inspection, etc.

It strikes me that it would be of much assistance to our medical inspectors if such arrangements could be made, especially with Canadian medical officers at Grosse Isle, and that, as secretary of the State Board of Health, you would be the proper person to confer with them regarding it.

If you concur with me in this, will you please correspond with the proper parties, with a view to establishing such a system?

Perhaps something like the slips used during the small-pox epidemic will answer. I enclose samples which you will doubtless recognize.

Very respectfully,

WM. L. GREENLEAF,
Special Deputy Collector.

STATE BOARD OF HEALTH, }
PRESIDENT'S OFFICE, }
RUTLAND, Sept. 19, 1892. }

Dr. J. H. Hamilton, Secretary State Board of Health :

MY DEAR SIR—I have been to Albany to-day to consult with Dr. Balch in regard to the cholera situation. He thinks as I do, that our greatest danger lies in Canada. He regards it practically impossible for the germs to reach this way via New York this fall. There is much stir in some western cities about New York passengers, and some are reported to have gone as far as to quarantine against New York City. I think this is all unnecessary, and should not deem it, at least as things look at New York to-day, wise for us to attempt any such thing.

But I do think that we should be watchful of Canada, and be ready for active operations on the border if it shows itself there.

New York State border is divided into four districts, with an inspector for each, and a health officer in each town. If a single case appears in Canada, Dr. Balch says, no passenger or baggage of any description shall come over until it is critically examined and fumigated.

Mail fumigation he regards as useless.

We should be ready to act vigorously and in unison with the federal authorities at the railroad points on the border, and I would request each of the present inspectors to have a plan in mind so that a fumigating building can be utilized on short notice. This will be necessary, probably, another year anyway.

I enclose circulars which Dr. Balch handed to me, which explain themselves.

Very respectfully,

C. S. CAVERLY.

PINE HEIGHTS, BRATTLEBORO, VT., }
September 19, 1892. }

Dr. J. H. Hamilton, Secretary, Board of Health, Richford, Vt. :

DEAR SIR—I beg to acknowledge the receipt of a package of your annual reports, for which I am obliged. How soon can I see the advance sheets of your report for the present year?

I am impressed with the need of greater powers necessary for the efficient management of your department, and desire to know what recommendations you make concerning the same. Do you extend your jurisdiction at all to the transportation of live stock?

In examining your circulars I am impressed with the lack of authority upon their face. They are not headed with official title, neither are they signed by your board. It seems to me they are stripped of their official character by this omission. You may have some view, however, in regard to the same, and sufficient cause for the omission of which I am not aware.

In the preparation of my message, if there are things you desire especially to call to my attention, I should be pleased to receive early advice. I should be pleased to receive a copy each of the circulars issued by your board.

Yours truly,

LEVI K. FULLER.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, September, 1892. }

To Governor-Elect Levi K. Fuller :

DEAR SIR—I have the honor to acknowledge the receipt of your favor of the 19th inst. Section 6 of an act creating a State Board of Health defines our *duties* and *powers*, which are little more than advisory, hence the seeming lack of authority in our circulars.

In the fourth and fifth annual reports may be found under the heading "General and Special Reports" the views and suggestions of the secretary as to changes required to make the working of the board more efficient. On page 13 of the fifth annual report is a copy of a bill formulated by the board, which you will see was rejected by the legislature. Only \$1,500 is appropriated except in case of emergency. It should be at least \$2,000, paying the members at same rate as now.

I wish to be understood in recommending the extra appropriation that profitable work could be performed with the little addition.

Thanking you for the interest you are taking in this work,

I am very truly yours,

J. H. HAMILTON.

PINE HEIGHTS, BRATTLEBORO, VT.,
September 24, 1892. }

J. H. Hamilton, M. D., Secretary, Richford, Vt. :

DEAR SIR—I am in receipt of your favor, and have to thank you for the circulars and other information. In view of the fact that your board is vested with so little absolute power, it has occurred to me that it would be a wise provision if you would appear to have all that measure of authority which does go with your office, in so far as outward appearances are concerned.

In looking over your circulars, the suggestion which I made the other day has impressed me with a greater sense of its importance. It seems to me that if you would adopt a regular size, making the official size of circulars suggested, you would find it convenient; putting on the coat of arms and the State of Vermont, it would appear more dignified, and when if you sign officially, it would have all the authority it would be legally worth, and all of the prestige in a community by way of suggestions and recommendations that it is possible to get, and the people at large suppose you have authority, and very few of them know what the letter of the law is.

Pardon me for these suggestions; I don't want to interfere in any way or take upon myself any sort of burden or labor that does not properly belong to me. I simply make these suggestions as a private citizen, precisely the same as if I had been thrown in contact with you and had an opportunity for a social chat.

Assuring you of my interest in all that goes to promote the health of the people, and wishing you success,

I remain, yours sincerely,

LEVI K. FULLER.

STATE BOARD OF HEALTH,
PRESIDENT'S OFFICE,
RUTLAND, Sept. 27th, 1892. }

J. H. Hamilton, M. D., Secretary, etc.:

MY DEAR DOCTOR—I have made some changes in circular No. 4 and it is in type. Col. Fuller's suggestions are good, but they came too late for this circular. However, I have had the heading of the circular modified to conform somewhat to his idea. Dr. Sherwin has written for the circular because of an outbreak in his part of the State.

I have ordered 10,000 copies, 4,000 to you and 3,000 each to Sherwin and myself.

The circular, after careful reading, seemed to be very good, and the changes I made in it are unimportant. I am going to sketch a circular on typhoid fever. We are not having much here this fall, but it prevails somewhat in the country towns about.

Very truly,

C. S. CAVERLY.

NAVY DEPARTMENT,
BUREAU OF MEDICINE AND SURGERY,
MUSEUM OF HYGIENE, 1707 NEW YORK AVE.,
WASHINGTON, Sept. 13th, 1892. }

Dr. J. H. Hamilton, Secretary State Board of Health, Vt.:

SIR—I inclose herewith a report of the analysis of a sample of water received from Vermont.

As there was no letter sent explanatory of source obtained, I send you the report as being in communication with the parties sending it, or by your direction.

Very respectfully,

PHILIP S. WALES,
Medical Director, U. S. N., in Charge.

(Copy.)

Sample No. 35.

NAVY DEPARTMENT,
BUREAU OF MEDICINE AND SURGERY,
MUSEUM OF HYGIENE, 1707 NEW YORK AVE. }

Examination of Water.

Date received, Aug. 29, 1892.	Depth of well, _____
From Vermont.	Geological formation, _____.
Source, _____.	Request of _____.

(Address,) _____,
_____.

Chemical Examination.

(Expressed in parts per million.)

Color, none.	Free ammonia, .120.
Odor, of lime.	Albuminoid ammonia, .820.
Turbidity, slight.	Nitrites (as nitrogen), none.
Sediment, very much.	Nitrates (as nitrogen), traces.
Residue on evaporation, 659.3.	Chlorine, 3.5.
Loss on ignition, 362.5.	Hardness, 184.45.
Fixed solids, 496.8.	

Remarks.

The water contains a large amount of lime in suspension, which accounts for the large residue on evaporation.

The albuminoid ammonia is also very high. Its use could not be recommended either for drinking or steam purposes.

_____,
Med. Director, U. S. N., in Charge.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., Sept. 15, 1892. }

F. D. Badger, Health Officer:

DEAR DOCTOR—To-night an analysis of water was received from Washington, D. C., said to have come from Vermont.

I suppose by the date this was from you, so I enclose same to you. If all right, will you kindly let me know as soon as possible. You see by the report this water is not what it should be for general use.

Yours truly,

J. H. HAMILTON, Secretary.

STATE BOARD OF HEALTH, }
SECRETARY'S OFFICE, }
RICHFORD, Sept. 20, 1892. }

Dr. F. H. Cilley, Health Officer:

Another case of scarlatina is reported to me from Jericho. I am notified also that the public schools are opened.

Will you kindly notify the prudential committee to discontinue the schools, or say to them you have notice from the State Board of Health to that effect and thus act as our agent in the matter?

I hoped the State would not be to any more expense in this matter, but that the local authorities would see the importance of preventing the further spread of the disease.

Respectfully,

J. H. HAMILTON, Secretary.

HARTFORD, VT., Sept. 20, 1892.

DEAR DOCTOR—I have a typhoid case to report—Willie Gile, aged ten years.

I wish you would send me circulars for distribution as we expect to inspect this village this week.

Truly yours,

J. A. DAY.

P. S.—I will send report in a day or two.

STATE BOARD OF HEALTH, }
SECRETARY'S OFFICE, }
RICHFORD, VT., Sept. 22, 1892. }

MY DEAR DOCTOR—Thanks for your good attention to sanitary work. Circulars sent as requested.

J. H. HAMILTON, Secretary.

HARTFORD, VT., Sept. 24, 1892.

Dr. J. H. Hamilton, Richford, Vt.:

DEAR DOCTOR—We had an outbreak of diphtheria in Olcott last June, which involved six families.

The cause of its spread was due to an error in diagnosing the first case as tonsilitis for the first week. These families were exposed during this week.

That in the west part of the town was and is confined to one family, and was contracted from Sharon.

The two cases which occurred in Hartford were also contracted in Sharon.

Five cases on what is known as Christian street were contracted from Olcott by a young man returning to his farm work after having had a sore throat with one very small patch, which disappeared in twenty-four hours. He was ordered to stay at home, but disobeyed orders, and I was not aware that the orders were disregarded until it was too late.

Following the outbreak of diphtheria at Olcott, the town Board of Health canvassed the whole village and individually inspected the sanitary conditions of each house. The benefit derived from this canvass is readily shown by the following:

During the summer of 1891, we had in Olcott ten or twelve cases of typhoid fever; thus far this season (1892) we have had none.

September 12th, the State and town Boards of Health met at West Hartford and inspected each house; we found them in a bad condition. The orders given have been obeyed.

Fraternally yours,

J. A. DAY.

(Telegram.)

BRATTLEBOBO, VT.

Dr. J. H. Hamilton, Sec'y State Board of Health:

Can you telegraph New York State Board of Health to quarantine Fisher's Island, New York? Diphtheria has been brought here from the island, and three bodies brought here.

A. J. MILLER, Health Officer.

(Telegram.)

SEPT. 21, 1892.

Lewis Balch, Sec. State Board of Health, Albany, N. Y.:

Diphtheria is being imported to Brattleboro, Vt., from Fisher's Island, N. Y. Will you look to quarantine?

J. H. HAMILTON,

Secretary State Board of Health.

NORTH BENNINGTON, VT., }
 September 20, 1892. }

Charles S. Caverly, President State Board of Health:

MY DEAR SIR—We have two or three cases of diphtheria here at North Bennington, and we want to stamp it out at once.

Yesterday the trustees of the village, and also the prudential committee of the graded school district, met jointly, and unanimously resolved to obtain the appointment of Dr. L. B. Newton of this village as a local health officer for North Bennington, village and district, either from the State Board of Health or the selectmen of the town of Bennington, or both. We want him to have ample authority.

The selectmen of the town do not appear to know whether they have full authority or not, but if both appoint there can be no mistake. Dr. Rogers will supplement this by anything you wish.

Mr. E. D. Welling, the bearer, whom permit me thus to introduce, was unanimously appointed at the meeting yesterday to effect the above result.

Trusting that you will speedily aid us in accomplishing what we wish, I am,

Yours very truly,

J. G. McCULLOUGH.

NORTH BENNINGTON, VT., }
 Sept 21st, 1892. }

Charles S. Caverly, M. D., President State Board of Health:

MY DEAR SIR—We have in this village, and school district, three known cases of diphtheria, and the exposure, as we are informed, has been very extensive. We have applied to the town health officer, and also the selectmen of the town, as individuals, and also as the board of village trustees, but the results are not what we think they ought to be.

There seems to be considerable doubt on the part of all of us as to what the duties of each are, and how far we can go and not conflict with each other. We supposed, up to yesterday afternoon, that we had things finally arranged so that we could do all that was necessary without trouble, but at that time there was a case broke out in our village, that was in the town of Shaftsbury. It may be well for me to say that our school district lies partly in each town, and thus, of course, is under the jurisdiction of an entirely different set of officers in each town. Our village officers have no jurisdiction whatever in the town of Shaftsbury, and as the whole board of selectmen, as well as their health officer, if they have one, live in another part of that town, we feel that we are not getting adequate or proper protection from the danger that menaces as from that part of our community.

We feel that this is a time when all red tape and clashing of authority should be put one side and strenuous efforts made to stamp this trouble out before it reaches larger proportions and menaces our whole community.

I have seen Dr. Rogers of Bennington, who promises all that lies in his power, and, after full consideration of the situation, it seems to us that the best and only safe way is to ask that you come to us immediately; that you learn fully our situation and all the complications, and then take such action to help us as lies in your power. From the experience that I have had in this town, in my efforts to learn what should be done, and who should do it, I cannot but feel that the officers of the town of Shaftsbury must be more or less ignorant of their duties under these conditions; and I also know that there is not an officer of the town of Bennington that would not be pleased to have more information and a clearer idea of what his duties are under these circumstances.

I enclose you a letter from Mr. J. G. McCullough to yourself that was written when the situation presented a different phase from what it now does, and when I expected to see you in Rutland and learn all that seemed necessary. This was when the trouble was all confined to our own town, but now, with the situation as it is, it seems to us that my seeing you in Rutland would not accomplish what it is imperative should be done at once.

Will you come to us at the earliest moment possible or send some one that has the necessary power to put us in the right way?

We are all heartily in earnest in this matter, and every moment of delay seems to us a loss of very important time.

Your attention will oblige,

Yours very truly,

E. D. WELLING,

Chairman Board of Village Trustees.

Mr. McCullough said that, if necessary, he would refer you to Mrs. Baxter, whose physician you are.

So far as I am concerned, I would refer you to Hon. J. W. Cramton, Hon. Henry F. Field, and your postmaster, Fred A. Field, who has been a life long friend of mine.

STATE BOARD OF HEALTH,
PRESIDENT'S OFFICE,
RUTLAND, Sept. 22, 1892. }

Dr. J. H. Hamilton, Sec., etc.:

MY DEAR DOCTOR—The enclosed letters came to me last night, and I have been to North Bennington to-day. I find they have four cases of diphtheria there, and, as these letters show, are in earnest in the matter of getting rid of it. The village of North Bennington is partly in the town of Bennington and partly in Shaftsbury.

I met the selectmen and physicians of both towns. Dr. Woodhull was appointed health officer of Shaftsbury and Dr. L. B. Newton for that part of Bennington included in the village of North Bennington. Both boards adopted our regulations, and will act intelligently in the matter, I think. I will sketch a new circular on diphtheria and send to you for your correction. I don't know that it will be necessary for you to come down this way now. I think the cholera danger is probably past for this year. We should have our plans formulated for meeting it next season, however. Did Dr. Sherwin report to you on the Hartford matter? I sent him a petition directed to our board and sent to me.

Very truly,

C. S. CAVERLY.

NORTH BENNINGTON, }
 Sept 30, 1892. }

DEAR DOCTOR—Inasmuch as you came down here in official capacity to counsel us as to management in the matter of that much dreaded disease, diphtheria, and spoke of it with so much assurance as an actively contagious disease, and so recognized by the profession, that in cases occurring under their care, if they should not report them to the Board of Health, they should be *prosecuted*, I hope you will pardon me, an old man, in practice for nearly fifty years, and in the meantime, or for about forty years, observed its different phases, for giving you some *facts* that have presented themselves to me. These facts have impelled me to take issue with you in your conclusions. While admitting its infectious nature, and in *some degree* contagious, I am compelled to deny the *activity* of the contagion; that no evidence which has come anywhere near a *proof* is presented to me. The disease, as it has appeared here during the year past, is typical of it as witnessed by me in the years gone by. I will describe: The first case was a boy, in a double house, with four in the family, and *twelve* in the other family, with no communication of occupants. The case was of very malignant type, and he died in three days. I used no disinfectants, having little or no faith in them after trial. None of the others in the family had a symptom, and there was no quarantine. A sister of the boy had the disease hard a year before and recovered. Neither of these cases had had any *possible chance* for exposure—*so-called exposure!* The sister did not fully recover for one year, suffering from paralysis sequel. She imparted it to no one, though no pains were taken to isolate her. The adjoining tenement, whose inmates were not on speaking terms, would not enter the room, but being frightened, began *fumigation* early and kept it up for some days thoroughly. But in a short time *four* children were attacked almost simultaneously, and in two or three days two others, *two* very *sick*, the others mildly. The *rest* had no symptoms; no deaths. A quarantine was established, but quite imperfectly, yet

sufficiently so as to determine, from lapse of time, that no one took it from them. A few weeks after, sixty rods away, a large family of children were attending school. Two of them became *sick in the school room*, and went home ill with the membrane in the throat. I saw them that day. Before the next night two more were down, and another two soon followed. Two soon died with diphtheretic croup; another lingered ten days and died; the others recovered. Two had no symptoms, no isolation, neither father, mother nor attendants. A half mile away another died *croupy*, with no communication with these or others. A half mile further two or three other cases of the milder type, and many *sore throats*, with diphtheric exudation, and that was the end in our village. Four miles away a child, in a healthy locality, was taken ill with *mistaken* membranous croup and died. Thirty or forty children attended the funeral, went around, kissed the corpse, and soon diphtheria appeared to the rest, but *none of those attending the funeral had it!* Three miles further away, in a healthy neighborhood, in an isolated place, with *no exposure*, they came down with it. Several months of exemption passed. A teacher in one department of the school was taken with the disease, and in a day or so a boy in attendance also; soon a child in another family, and this in course of a week was followed by four others, and a week later a boy in still *another* family. The tracing of the cause is an *utter impossibility*. Only this is known: That impartial and fair judgment in all these cases would say that the germ was not propagated from person to person, but formed seemingly "*de novo*" by process unknown. If in any case there was individual propagation it is not proved. In a very few cases there *might* have been, but in the great majority there was no chance. No definite period of incubation, such as is known in specific contagions, can be ascertained. Disinfectants and fumigation all through my practice seemingly ineffective. I have never taken any pains with them in my own person; mingled freely with the people, and *know* I never imparted it to others—pretty surely.

Now, with my experience and observation for so long a period, I cannot be frightened with the idea of an *active contagious* disease, nor do I believe the profession is justified in telling the community, terribly frightened anyway, that it is more contagious than small-pox, or that you can disseminate *ad libitum* the scourge by *your clothing*. The leading physician in Bennington says to me, "It is but mildly contagious anyway." I agree with him. But I am, at this late day, *open to conviction*, and if you can satisfy me as to its cause, the *conditions which produce the germ*, and it is really any more contagious than typhoid fever, you shall have my hearty thanks.

Yours truly,

S. E. RANNEY.

STATE BOARD OF HEALTH
 PRESIDENT'S OFFICE,
 RUTLAND, Oct. 6, 1892. }

S. E. Ranney, M. D., North Bennington, Vt. :

MY DEAR DOCTOR—Your letter of the 30th inst. is received and I am interested in its contents, and appreciate the candor with which you write. Your experience is certainly valuable, at least to you, in forming an opinion of the nature of diphtheria. Its length makes it doubly so, and it is very unfortunate for those who look to you for medical advice that you cannot conscientiously endorse the method of restricting diphtheria now in vogue.

With due respect, my dear doctor, to your exceptionally long experience with this disease, and your evident purpose to view the matter fairly and unbiased, I submit that it is your duty and mine to accept the theories and methods of management, in this disease, that have the sanction of authority and have proven their utility in actual practice.

I have no time to enter into the details of this subject now. I do not think we know everything about diphtheria yet, and like other contagious diseases, it is often impossible to trace the contagion in every case, but as medical men, and as good citizens, we should be willing to accept conclusions arrived at by scientific sanitarians.

I will simply ask you to think over the views entertained of this disease by our best authorities—Jacobi, for instance—and if there is any doubt in your mind about the manner in which this infection spreads, or whether it does arise *de novo*, please consider if it is not right that you should give your patients the benefit of that doubt and take precautions that good authority endorses, though it may not seem necessary to you?

Further, if you will obtain a copy of any recent report of the Michigan State Board of Health (which I think you can do by writing to H. B. Baker, secretary, Lansing, Mich.), and will examine the results obtained in that State, where the disease has formerly prevailed as much as anywhere, from the use of modern methods of management, and note the comparisons made between different localities and different outbreaks where the disease was either handled loosely or with no precautions, I am sure you will not question the practical utility of sanitary medicine, as applied to diphtheria. I am sorry your experience does not coincide with others, but I feel sure from your letter that you are willing to investigate still further, and with unprejudiced mind.

Believe me, very respectfully yours,

C. S. CAVERLY.

GROTON, VT., September 28, 1892.

Dr. J. N. Jenne, Inspector of Cholera Epidemics :

DEAR SIR—Allow me to call your attention to some neglected filthy nuisances in this place. It is safe to say that there are vaults in this village that have not been cleaned out for ten years, and other places that would bear inspection. I have called the attention of the State Board of Health to this matter, but they have paid no attention to it. Is there any remedy for us ?

Yours truly,

DANIEL COFFRIN.

J. H. Hamilton, Secretary State Board of Health :

DEAR DOCTOR—As this refers to a matter about which I have nothing to do, I forward the same to you to see if you can do anything about the matters complained of.

J. N. JENNE.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, Oct. 3, 1892. }

Daniel Coffrin, Esq. :

DEAR SIR—Your letter addressed to Dr. Jenne has been forwarded to this office. I would say in reply that you have a remedy at home. Selectmen constitute a "Board of Health," with full power to abate nuisances, etc. The State board has no authority unless disease has resulted from the filth referred to.

Dr. Eastman is this day appointed health officer, whom you will consult in regard to the matter. This office is not in receipt of any previous complaint.

J. H. HAMILTON, Secretary.

FRANKLIN, VT., Oct. 6, 1892.

Dr. J. H. Hamilton :

DEAR DOCTOR—Are sporadic cases of typhoid fever considered to be sufficiently contagious so that it may be conveyed by or through the attendants or members of the family should they appear upon the streets or enter places of business ?

Yours respectfully,

J. B. HALL.

P. S.—An early reply is solicited.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., Oct. 10, 1892. }

J. B. Hall, M. D.:

DEAR SIR—I would say in reply to yours of the 6th inst. that if proper regard is paid to personal cleanliness the danger would be very little.

Respectfully,

J. H. HAMILTON, Secretary.

NORTH HERO, VT., Oct. 10, 1892.

J. H. Hamilton, M. D., Secretary State Board of Health, Richford, Vt.:

DEAR DOCTOR—I wish to report to you the fact that I have under my care two cases of diphtheria. There is no health officer in town, and I cannot put in force proper restrictions and regulations.

Will you kindly furnish me with circulars relating to contagious diseases for distribution, and take such other action as you may see fit. Being a stranger to you, it may not be improper to mention Dr. Wilder of Swanton, and Dr. Bailey, vice-president of the State society, as friends. I am

Very respectfully yours,

GEO. BYRON HYDE.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, Oct. 11, 1892. }

Geo. B. Hyde, M. D.:

DEAR DOCTOR—I acknowledge with pleasure the receipt of your letter reporting cases of diphtheria. Find enclosed also appointment as health officer.

While I have not the pleasure of a personal acquaintance, I know you very well by reputation.

Respectfully,

J. H. HAMILTON, Secretary.

DOMINION OF CANADA,
DEPARTMENT OF AGRICULTURE,
OTTAWA, Oct. 8, 1892. }

J. H. Hamilton, Esq., M. D., Secretary State Board of Health, Richford, Vt., U. S. A.

SIR—I have to acknowledge your letter of the 23d ult. covering a copy of a form which you wish to have in substance adopted at

the Canadian quarantines, so as to afford health officers in the United States an opportunity of being assured with respect to the persons who receive pratique at the quarantines.

I think favorably of your proposal, but it is a little late for the present season to commence a new system. Your letter will be filed for consideration and action for the next season.

I have the honor to be, sir,

Your obedient servant,

J. LOWE,

Deputy Minister of Agriculture.

MANCHESTER, VT., Oct. 25, 1892.

Dr. Caverly :

DEAR SIR—I am desirous of removing the remains of my mother from Shoreham to my burial lot in this town. She has been dead twenty-eight years (28) next month. She had old-fashioned consumption, a sudden cold and congestion of the lungs bringing on her death sooner than we had looked for.

The rules for transportation of dead bodies make it seem necessary to have a hermetically sealed box (see rule 8), and also the approval of the State Board of Health. The approval is all right; can you send me one? Is it necessary to have a soldered zinc, tin or copper box? Will not a strong box made of planed and closely matched lumber, lined with heavy paper, answer for a case like this? Shoreham is a farming town, and while I can have a tin box made and take with me, I doubt if I could get it closed and soldered in that town unless I took a man just for that purpose, or did it myself in a rough way.

Yours truly,

L. H. HEMENWAY.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, Oct. 27, 1892. }

L. H. Hemenway, M. D. :

DEAR SIR—You ask the approval of the State Board of Health to remove the remains of your mother from Shoreham to Manchester, which I take pleasure in forwarding.

I should say the preparation for removal would only require a box for the remains, in a larger one having space sufficient to fill in with sawdust saturated with carbolic acid or corrosive chloride solution.

I received your letter this morning.

Very sincerely,

J. H. HAMILTON, Secretary.

STATE BOARD OF HEALTH,
PRESIDENT'S OFFICE,
RUTLAND, VT., Nov. 4, 1892. }

Dr. J. H. Hamilton, Secretary, etc. :

DEAR DOCTOR—I went to Poultney, yesterday. One case of diphtheria developed there a few days ago, in a tenement house across a lane from the graded school building. It is in a house with several families, and the proximity of the school made it threatening. Dr. Ellis, the health officer, I found had isolated the case and closed the schools and was handling the matter in a thorough and entirely satisfactory way. I think he is doing all that is necessary. The case came from a family that had the disease in Hampton, N. Y., just across the State line.

Very truly,

C. S. CAVERLY.

LUNENBURG, VT., Nov. 21, 1892.

J. H. Hamilton, M. D. :

DEAR SIR—We have a case of scarlet fever here in the village, in the family of the pastor of the M. E. church. The case seems to be light, and the child not very sick. I have quarantined the house and forbade the parents from attending public meetings, etc.

Please send me a few circulars and write instructions to me. I will endeavor to carry out the law, but am afraid I shall meet with some opposition. We had a few cases here a year ago, and there have been several cases in the town of Guildhall, five or six miles from here. Please write me who the health officer of Guildhall is. Hoping to hear from you soon I remain

Yours truly,

A. W. SCOTT, M. D.,

Health Officer, town of Lunenburg.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT. }

Dr. A. W. Scott :

DEAR DOCTOR—Yours received notifying this office of outbreak of canker rash. I send circulars as desired.

Respectfully,

J. H. HAMILTON, Secretary.

STATE OF VERMONT,
EXECUTIVE DEPARTMENT,
BRATTLEBORO, VT., Dec. 6, 1892. }

Dr. J. H. Hamilton, Secretary State Board of Health, Richford, Vt. :

DEAR SIR—There have been reported to me from Springfield and Taftsville, in Windsor county, several cases of hog cholera. I have placed the matter in the hands of Homer W. Vail, member of the State Board of Agriculture, North Pomfret, for his direction and have asked him to consult with Dr. Sherwin in the matter.

I wish you would send to Mr. Vail your official circulars regarding diseases and communicate with him if you can assist him in any way in the matter.

Yours truly,

LEVI K. FULLER.

STATE OF VERMONT,
EXECUTIVE DEPARTMENT,
BRATTLEBORO, Dec. 9, 1892. }

Dr. J. H. Hamilton, Richford, Vt.:

DEAR SIR—Yours of the 7th is received. I will call the attention of the board to section No. 93 of the acts of 1886.

The reason why I think your board should look into this matter is because one of the diseased herds is that owned by Royal T. Lovel, Springfield, Vt., the herd being situated underneath his slaughter house and fed on offal. I suggest that you communicate with Dr. Sherwin ; I will write Mr. Vail also to that effect.

Yours truly,

LEVI K. FULLER.

SOUTH BURLINGTON, VT., Dec. 13, 1892.

Dr. Caverly, Chairman State Board of Health :

DEAR SIR—I have entered complaint to Mr. Steel, selectman, Mr. Wheeler, our grand juror and J. E. Cushman, State's attorney, but no action, to my knowledge, has been taken as yet.

The trouble is that Mr. Dolan and others keep hogs, and the smell from them in warm weather is terrible, and at night they squeal and keep us awake.

Dr. Crandall, health officer of Burlington, has driven in this section and knows something about it, also Henry M. Wilson, Jersey milkman, could give information.

Now will you do anything about it? Let me know, one way or the other. Can you attend to it at once.

Respectfully,

EDWARD BARTIMY,

by E. S.

[Answered by telling him that a health officer would be appointed as soon as possible, and then the remedy will be in the hands of their local Board of Health.]

ST. JOHNSBURY, VT., }
December 21, 1892. }

To State Board of Health, J. H. Hamilton, Secretary :

DEAR DOCTOR—In compliance with your suggestion, and at the request of many people here, I have for the last few days been investigating the condition and causes, as far as possible, of the endemic of typhoid fever which has prevailed here to some extent for the last two months. The medical profession, without exception, have kindly aided me in every possible way. The first cases occurred in the extreme north end of our village, about October 9th. They were both in the same house, one of which was fatal.

The next cases, to the number of about thirty-six (36), including the above two, occurred promiscuously almost all over our village.

Of these thirty-six, five have proved fatal, fifteen have recovered and probably fifteen are still sick. Three of these however are thought dangerous.

As to the etiology, there are great doubts and differences of opinion among our medical men.

That we have hundreds of places scattered over this village in a bad sanitary condition and good places for the typhoid bacilli to find a prosperous home, no medical man doubts. I am unable to trace any infection from abroad. It seemed to start *de novo*, at the place of the first two cases above named.

Our water supply comes in for the greatest amount of discussion and consideration as to the etiology.

It is true that the sewage from the house where the first two cases appeared gets into our village water supply only about one hundred and twenty rods above our village pump.

It is also true that most of the cases of typhoid fever, and particularly where four deaths have occurred, have used the water from the village system. However, not all of the cases have used the village system of water. We have another system of water which comes from a pond in Waterford, called the Fairbanks system. Five or six of the cases of typhoid and one death were in families who used this system, and those cases, of course, could not have got the germ from the first two cases or from the village system, which I forgot to mention is river water ; and right here, there is a great desire among the people that the different waters should be analyzed. I think that you told me that you had means of analysis of any water at the expense of the State. Will you kindly inform me how to send water, how to mark it, also how much to send.

I shall be unable to do effective and practical work in our town until after the election of the board of trustees in January, and

then I shall probably call on your board to aid and assist me in the sanitarian improvements which need to be inaugurated.

I will make you a supplementary report within a few days.

Yours very respectfully,

GATES B. BULLARD, M. D.

STATE OF VERMONT,
EXECUTIVE DEPARTMENT, }
BRATTLEBORO, December 27, 1893. }

Dr. J. H. Hamilton, Richford, Vt. :

DEAR SIR—There is hog disease existing at several points in the State. The cattle commissioners, who are three members of the Board of Agriculture, as follows: C. M. Winslow, Brandon; H. W. Vail, North Pomfret, and J. H. Hills, Burlington, have had a large number of cases under their management.

The general rule that they have adopted is that of the Massachusetts cattle commissioners, and consists mainly in quarantining the herds affected, with suitable sanitary precautions.

The herd of Royal T. Lovell, Springfield, Vermont, is located at his slaughter house, and was in the sloping basement underneath, with a yard at the side, consisting of more than twenty hogs, is dying out, and as they die they are taken out and buried.

I think your board can, with great propriety, confer with the cattle commissioners in regard to this, as it may have a bearing upon the public health. I have to-day written to Mr. Winslow, asking him to confer with you.

Yours truly,

LEVI K. FULLER.

STATE OF VERMONT,
EXECUTIVE DEPARTMENT, }
BRATTLEBORO, January 9, 1893. }

Dr. J. H. Hamilton, Richford, Vt. :

DEAR DOCTOR—Yours of the 7th, informing me of the action of the Board of Health in regard to the work of the cattle commissioners, has been received. I am pleased to note your confidence in the work of the commission.

Yours very truly,

LEVI K. FULLER.

BELVIDERE CENTER, VT., }
 January 9th, 1893. }

Dr. Hamilton, Richford, Vt. :

DEAR SIR—Last summer, when we received your circulars regarding health officers' and selectmen's duties, we replied by asking you to appoint G. B. Hulbard, M. D., of Waterville, as health officer for this town. Diphtheria having broken out in town, we asked him regarding the appointment, and he says he has not received any official appointment for Belvidere. Now, as we have no resident physician in town, we respectfully ask you to make the appointment of Dr. Hulbard as health officer for this town officially, and at once, that there may be proper care taken against the spread of the disease. Meanwhile we are doing what we think needful in the case.

Hoping this communication will meet your favorable action,

We are, &c.,

F. W. DAVIS,
 R. D. DAVIS,

Selectmen for the Town of Belvidere.

OFFICE OF DR. HAVILAND, }
 DANVILLE, VT., Jan. 15, 1893. }

J. H. Hamilton, Richford, Vt. :

DEAR SIR AND BROTHER—I think we are on the eve of a small epidemic of scarlatina. Several weeks ago there were two cases of what has proved to be (undoubtedly) scarlatina, in the family of Mark Adam, one mile from Greenbank's Hollow ; two boys only in a family of half a dozen having it. They employed no physician and made no report of it, saying now that they did not know what it was. The other members of the family were quite energetic in going to school, to the store and to private houses, etc. Last week there were two cases in the family of Wilbur Hunt at Harvey's Hollow, directly traceable to Adams', and to-day I have seen one case in the family of Isaac Green, at Harvey's Hollow. I have stopped the school and recommended all outsiders to keep away from infected houses, and those at such houses to remain at home until the cases are well, and thorough fumigation has been done. Now, if they don't obey orders, can I compel them to stay where they belong, and if so, please indicate process to me? Have you printed rules for fumigation and for quarantining infected houses and districts? If so, will you kindly send me a supply, that I can distribute in that neighborhood. Can I collect pay for five reports of contagious diseases from this letter? If so, do I need your voucher, or shall you send it once in three months or not at all? I have had the selectmen together and organized our local Board of Health. Aside from this scarlet fever area, the general health of the town is excellent. Please write me

fully in regard to this matter, with a supply of printed matter and make any suggestions to me you may deem called for. How about the Walden appointment? Hoping to hear from you soon,

Fraternally yours,

N. C. B. HAVILAND.

STATE OF VERMONT,
DEPARTMENT OF FISHERIES,
RUTLAND, Vt., January 24th, 1893. }

Dr. J. H. Hamilton, Richford, Vt. :

DEAR SIR—I beg to acknowledge receipt of a pamphlet relating to the protection of the purity of water supplies, etc., for which accept thanks. Such documents are very interesting to me, and I shall appreciate your kindness in sending me anything of the kind which argues for the purification of our water supply in the State. I have not had time to do anything since the meeting of the legislature on this subject, but think the league and the State Board of Health can work together on the subject at the next session.

Thanking you for your kindness,

Yours truly,

JNO. W. TITCOMB,

Fish and Game Commissioner.

TREASURY DEPARTMENT,
OFFICE SUPERVISING SURGEON-GENERAL,
U. S. MARINE-HOSPITAL SERVICE,
February 15, 1893. }

To the State Board of Health of Vermont :

Section 3 of the national quarantine law, which has passed both Houses of Congress, and has this day received the President's approval, provides "That the supervising surgeon-general of the marine-hospital service shall, immediately after this act takes effect, examine the quarantine regulations of all State and municipal Boards of Health," etc.

In order to comply with the duty imposed by this section, I have to request that you will send me a copy or copies of your quarantine regulations.

Respectfully yours,

WALTER WYMAN,

Supervising Surgeon-General M. H. S.

STATE BOARD OF HEALTH,
 SECRETARY'S OFFICE,
 RICHFORD, VT., Feb. 18, 1893. }

Walter Wyman, M. D., Supervising Surgeon-General M. H. S.:

DEAR SIR—In compliance with your request, I have the honor of transmitting herewith a copy of Vermont laws relating to quarantine.

While the laws may be all that could be desired, the appropriation is insufficient for thorough work.

Respectfully,

J. H. HAMILTON, Secretary.

OFFICE OF E. S. MUNGER, M. D.,
 PUTNEY, VT., February 16, 1893. }

J. H. Hamilton, M. D., Secretary State Board of Health.:

DEAR DOCTOR—Herewith is a report of one case of diphtheria, reported by Dr. Foster. I have not seen the case and judge that diagnosis may possibly be wrong, from his description of the case. As several persons were exposed, and a sister of the patient attended school for three days after the attack of "tonsillitis" began, there is a chance for trouble, provided diphtheria diagnosis then made is correct. There is as yet general ignorance of the law, which should be removed by action on the part of the health board. It seems to me that circulars should be generally distributed by local health boards, under direction and on forms furnished by the State board. Some amendments to the law will be needed later. Provision should certainly be made for payment to physicians for reports to the health officer. Otherwise I feel confident that the penalty imposed for not reporting cases of contagious disease cannot be enforced. Here is a point on which I would ask instruction: Putney physicians attended patients in Putney, Dummerston and Westminster (in Vermont towns) mainly, in the two latter towns being in many cases nearer patients than the health officer of those towns, in all probability. Now suppose a case of contagious disease occurs just over the line. Should it be reported to the health officer of the town in which it occurs? If so, how is a physician to know to whom his report should be made? Should not a complete list of health officers be issued, or county boards be organized for mutual help? Will you kindly give me the address of the health officers for Putney and Dummerston, also additional blanks for physicians' reports, and another copy of the law of 1892, as there is now a third physician in this town who should be supplied? I am writing in great haste and with cold hands, so that I fear this scrawl will be hardly legible. I presume that some suggestions I had been considering may also be omitted, but probably you will find this sufficient for once.

Yours truly,

E. S. MUNGER.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., Feb. 18, 1893. }

E. S. Munger, M. D.:

DEAR DOCTOR—Replying to yours of the 16th inst., I would say that I certainly deem it advisable to organize county boards. I enclose list of health officers as requested.

Respectfully,

J. H. HAMILTON, Secretary.

STATE BOARD OF HEALTH,
WOODSTOCK, March 1, 1893. }

W. E. Lazelle, M. D.:

DEAR DOCTOR—Yours at hand. Write to Dr. J. H. Hamilton of Richford, who is the executive officer of the board, and he will help you out on the removal of the nuisance you spoke of. If he is too busy to attend to it, I will try to go up in season to see to it. The law is now imperfect, but much better than it has ever before been. If the selectmen would just take hold and help you a little, you would have all the power in the world for the abatement of all such nuisances, but where they hold back, and you do not feel like pushing them up to it, the secretary of the State board can go and, with you, declare the nuisance and order its abatement, and then, if it isn't done within the time set, the owner is liable to a prosecution and fine; and it has been found that after one such trial there is no further trouble about the orders of the local health officer being attended to. Also, all physicians who have cases of infectious diseases within your jurisdiction should report them to you, and in case they refuse or neglect to, there is a fine of ten dollars, and if any fail to make reports of such cases, just write to Hamilton and have the matter looked up; and, as in the other cases, there is usually no further trouble. The majority of selectmen have but little backbone in such matters, and I don't know the reason, unless it be the fear that they may lose some votes at the town elections. It is a great pity that such things will influence men to neglect a duty, but I fear it is but too true. If you fail to get the thing to your liking, write me, and I will visit you and help you out, but properly it first belongs to the secretary of the board.

Truly,

O. W. SHERWIN.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL
MARINE-HOSPITAL SERVICE,
WASHINGTON, D. C., March 2, 1893. }

Dr. J. H. Hamilton, Secretary State Board of Health, Richford, Vermont :

SIR—I have the honor to acknowledge the receipt of your letter of the 23d ultimo, reporting the number of immigrants coming into the United States via Richford, and requesting to be informed whether an inspection service will be instituted on the Canadian frontier during the coming season. I would respectfully inform you that a medical inspection service, under the immediate supervision of officers in this service, will be instituted in a large number of the foreign ports from which emigrants embark.

It has not yet been certainly determined just what action will be taken on the Canadian frontier during the coming season. This will depend in a measure upon the recurrence or non-recurrence of cholera in Europe. The matter, however, will receive the full consideration which the importance of the subject demands.

Any information which you may have at any time bearing on the possible introduction of cholera via the Vermont frontier will be gladly received.

Very respectfully,

WALTER WYMAN,

Supervising Surgeon-General, M. H. S.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE.
LANSING, MICH., March 4, 1893. }

Walter Wyman, M. D., Supervising Surgeon General U. S. Marine Hospital Service, Washington, D. C.:

DEAR DOCTOR—Bearing upon the subject of your closer connection with the quarantine work of this country under the recent United States legislation, permit me to ask your attention to a number of facts and considerations tending to prove the great need of reform at most of the ports where immigrants generally enter the United States.

I quote from a recent report by an inspector of this board at the Michigan border: "The work at New York and the seaboard generally is evidently receiving very little attention. Very many packages inspected here [Michigan border] by the customs show plainly that they have not been opened since leaving the old country, neither by the customs at New York nor the sanitary inspectors. These boxes cannot be opened in New York and closed up again without leaving traces of the process of opening and reailing, and yet very many of these packages bear certificates of disin-

fection at New York. Recently a considerable number of immigrants via New York, and all those from Boston, have no certificates whatever."

I have hoped that the disinfection of baggage at Halifax was really to be of some use, but I am now reliably informed that "the disinfection of baggage at Halifax has degenerated from *heroic steam* to *mild sulphur* process;" therefore it has been found necessary to continue to detain baggage for steam disinfection at the Michigan border.

Incidentally I may mention that your inspector at Sault Ste Marie has not complied with the requirements of this board under the laws of this State; in fact, he generally disobeys them. Therefore, I presume that, unless you displace him, this board will disregard him and appoint an inspector there.

My belief is that the health officers of the ports of New York and Baltimore and elsewhere on the eastern seaboard do not attempt to disinfect the baggage of immigrants except they come in a vessel which has sailed from a so-called "infected port." This seems to me to be fundamentally wrong, and simply a relic of inefficient methods of action in ancient times. It is such action or non-action as this which has brought "quarantine" into disrepute, because *such* quarantine does *not* exclude disease. Immigrants are coming into this State from Germany, Russia and other countries and localities where cholera has occurred. That they cross the ocean in vessels from Liverpool or other "uninfected" ports does not in the least degree lessen the danger of the introduction of disease into this country in the baggage of those immigrants. I respectfully submit that the public safety from communicable diseases would be greatly promoted if the baggage of all immigrants was to be disinfected at the seaboard. And when I say "disinfected," I mean *disinfected*—not simply having a certificate attached to it that "It is believed to be free from infection," or that "It has been under observation by quarantine officials, and been subjected by them to such disinfection as they deem sufficient." Those of us in this part of the country who are trying to guard our people from the introduction of dangerous disease want to know that the baggage of immigrants from countries where cholera and other dangerous diseases have been, has been actually disinfected before it enters this State.

This brings me to the subject of certificates, because *if* it is possible to have actual and thorough disinfection at the seaboard, it may be possible to save duplicating such processes at State lines, as is now necessary. Dr. Watson of New Hampshire, a member of our international quarantine inspection commission last year, has perfected a sanitary-ticket system, whereby it is possible for an inspector at the seaboard to convey to all sanitary inspectors inland correct information relative to an immigrant and his baggage. I hope his system may be adopted. But no system of certificates is or can be useful under present inefficient methods at the seaboard; and all certificates must continue to be disregarded at our border until disinfection at the seaboard is thorough, certain and continuous.

In your work for the improvement of the quarantine systems of this country you can count on the active co-operation of the Michigan State Board of Health.

Very respectfully,

HENRY B. BAKER, Secretary.

U. S. DEPARTMENT OF AGRICULTURE,
DIVISION OF CHEMISTRY,
WASHINGTON, D. C., March 20, 1893. }

J. H. Hamilton, M. D., Secretary, etc.:

DEAR SIR—Please furnish me with any information that you may have in relation to the use of pepsin or black pepsin in (so-called) butter making. I should be glad to learn, also, anything in relation to other butter and cheese adulterants, and to obtain any reliable data concerning the adulteration of children's foods, dairy and pharmaceutical preparations. I enclose franked envelope for reply.

Please furnish me the names and addresses which you may know of any State or municipal officials charged with executing the laws relating to the adulteration of foods and drugs; also the names of officers or members of the pharmaceutical associations and dairy organizations in your State, and oblige,

Yours truly,

H. W. WILEY, Chemist.

Approved.

EDWIN WILLITS,

Assistant Secretary.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., April 15, 1893. }

To the Hon. H. W. Wiley, Chemist:

DEAR SIR—I have the honor to acknowledge your communication relating to black pepsin in the manufacture of butter, etc.

I am pleased to say that Vermont produces only the genuine article.

But little interest is taken in Vermont in relation to adulteration of foods, medicines, etc. No pharmaceutical association in Vermont. President Vermont Dairymen's Association, H. M. Arms, Springfield; James H. Curtis, St. Albans, secretary.

Very truly,

J. H. HAMILTON, Secretary.

SOUTH WOODBURY, VT., }
 March 20, 1893. }

J. H. Hamilton, M. D. :

DEAR DOCTOR—This is to certify that we have this day met and organized local Board of Health in the town of Woodbury.

E. M. DANIELS,
 C. H. DANA,
 F. LAWSON,

Selectmen.

R. W. LANCE,

Health Officer.

STATE BOARD OF HEALTH, }
 PRESIDENT'S OFFICE, }
 RUTLAND, VT., March 26, 1893. }

J. H. Hamilton, M. D., Secretary :

DEAR DOCTOR—I was called to West Pawlet Wednesday to see about raising the quarantine on a house there, near the depot, where there had been two cases of diphtheria. I found the cases had been well managed by Dr. Gilman, the attending physician, and by the health officer, Dr. Manchester. Dr. Manchester's letter to me since my visit I enclose.

I also enclose correspondence had with Dr. Crandall, Burlington.

I want to go to New York very badly, and hope to do so ; but I am very busy here, and may be kept at home.

With kind regards, I am,

Truly yours,

C. S. CAVERLY.

HEALTH DEPARTMENT, }
 BURLINGTON, VT., March 20, 1893. }

Dr. C. S. Caverly, Rutland Vt. :

DEAR DOCTOR—Our city charter (Sec. 5) gives power to the city council to elect the subordinate officers of the city, the health officer included.

Our city attorney thinks the act of the legislature respecting the appointment of health officers does not annul the power given as stated above. Now, in case the city council should claim the privilege to elect their own health officer, what attitude would the State Board of Health assume relative to such action, and what would be my duties respecting the same ?

Please answer at your earliest convenience.

Yours truly,

H. A. CRANDALL.

STATE BOARD OF HEALTH,
PRESIDENT'S OFFICE,
RUTLAND, VT., March 21, 1893. }

Dr. H. A. Crandall:

DEAR DOCTOR—The questions raised by you in Burlington is the same as that which we have heard from other places, viz. : the relation of local to State law. Until it is judicially decided by the courts we shall interpret the State law as it was designed to work by its framers, as not in any way interfering with or superseding local ordinances.

So, in order to have no conflict of officers, we decided last fall to appoint as our health officer, in towns or cities where local ordinances provided for such, the same men who acted under the local law.

For that reason you were appointed by us. If your council choose another man health officer for your city for the coming year, we shall probably think best to ask you to allow us to transfer the appointment to him, though your appointment was for three years, as the act prescribes.

I think you will admit that this is a proper and just way for us to act.

Very truly yours,

C. S. CAVERLY,
President State Board of Health.

PAWLET, VT.,
March 24, 1893. }

Dr. C. S. Caverly, Rutland, Vt. :

MY DEAR DOCTOR—I went to West Pawlet yesterday, thoroughly disinfected the house that had the cases of diphtheria of recent date, ordered such methods of personal disinfection as you suggested, and put the carpet that was in the room where the mildest case was in the bi-chloride solution for twenty-four hours, afterwards to be boiled one hour. I did this, as I found that the carpet belonged to the young man, whose means are limited. I then raised the quarantine. If anything seems wrong to you, please write me.

Very truly,

H. L. MANCHESTER.

ROYALTON, VT.,
March 27, 1893. }

J. H. Hamilton, M. D. :

DEAR DOCTOR—I send with this a sample of milk and water, which I should like to have examined for the typhoid bacillus. My reasons for suspecting them are as follows : The milk comes from a

place where there was a case of typhoid fever last fall, and the cow has been drinking water which, upon boiling, gives out a bad odor. The water in the bottle is from a running spring, situated above any houses on the side of a hill.

I have at present in my own family a girl, four years old, sick with typhoid fever, and my wife has the prodromic symptoms, and I myself have some of the same symptoms. We have been using the milk and water; besides, there are several families of children using the milk from the same cow, and, as health officer, I thought it my duty to send you sample of the milk before any more cases developo.

I believe the State Board of Health is the one to examine such things.

Yours respectfully,

W. H. GERRISH, M. D.,

Health Officer, Royalton, Vt.

ROYALTON, VT., }
March 30, 1893. }

J. H. Hamilton, M. D. :

DEAR DOCTOR—Your favor received. I will try and send water that the cow drank to Washington to-morrow, but as to the milk, since I found out that the cow drank the filthy water, the man has gone elsewhere for the water, and perhaps it would do no good to examine the milk now, for it has been a week. I have no doubt myself that the fever came to us from the milk, after examining the surroundings of the creek from which the water was taken. It is in a hollow, below the pig pen and barn yard, and, of course, at this time of the year is mostly filled with surface water. My wife and baby are both suffering from the fever—very light form, and Dr. Greene of Bethel and myself have decided that my wife has been through it, although she showed no rise in temperature over 100, and pulse about normal all the time, for she has been in bed three weeks, suffering terrible pain in her bowels, which have been tender to touch, especially on the whole of the right side, and they are still in the same condition, although temperature is natural, also pulse. The baby case only run two weeks, no temperature above 100 degrees. I had all the symptoms of commencing of the fever, and do not feel right yet; and one other case, where the milk was drank, a child has fallen away—been fretty—but has not shown any other symptoms of fever as yet. I should have said the creek connects with the river, and, taking into consideration the epidemics they have had at Bethel this winter from drinking river water—twenty to twenty-five cases—that adds another fact to the case. I have had just out of the village a case from drinking river water not two miles from the creek.

Thanking you for your favor, and I will send report of analysis when I get it,

I am yours, respectfully,

W. H. GERRISH,

Health Officer for Royalton, Vt.

[Directed specimen sent to P. S. Wales, and analysis herewith appended.—J. H. HAMILTON.]

Sample No. 54.

NAVY DEPARTMENT,
BUREAU OF MEDICINE AND SURGERY,
MUSEUM OF HYGIENE, 1707 NEW YORK AVE.,
WASHINGTON, D. C., May 20, 1893. }

Examination of Water.

Date received, April 13, 1893.

From Royalton, Vt.

Source, creek where cow was watered whose milk was sus-

pected of having produced typhoid fever.

Request of Dr. W. H. Gerrish, Health Officer.

Address, Royalton, Vt.

Chemical Examination.

(Expressed in parts per million.)

Color, none.

Odor, none.

Turbidity, slight.

Sediment, muck ; flocculent.

Residue on evaporation, 202.4.

Loss on ignition, 82.2.

Fixed solids, 120.2.

Free ammonia, .008.

Albuminoid ammonia, .060.

Nitrites (as nitrogen), trace.

Nitrates (as nitrogen), 5.2.

Chlorine, 6.66.

Hardness, 12.187.

Remarks.

The chemical examination of this water would not condemn its use.

Bacteriological Report.

The only bacteria found in this water were the ordinary water forms.

PHILIP S. WALES,

Medical Director, U. S. N., in Charge.

WELLS RIVER, VT.,
March 31, 1893. }

Secretary State Board of Health :

DEAR SIR—Scarlatina of a mild type is, to a certain extent, epidemic in this section of Newbury. Four cases in as many different

families, and quite widely separated as to location, have been reported during the past four weeks. No deaths have occurred, and the disease seems to be very mild. I, however, report the fact to you for any instructions you may wish to give in regard to its management. So far all affected and exposed children have been promptly removed from school when in attendance and quarantined, but schools have not been closed. All ordinary practicable precautions have been taken by physicians having these cases in charge to prevent its spread, and personally I do not think the outbreak is going to amount to much. Should it become more serious, I will at once notify you of the fact.

Very truly yours,

HENRY H. LEE, M. D.,

Wells River, Vt.,

Health Officer, Town of Newbury.

RUTLAND, VT. }
April 3d, 1893. }

Dr. J. H. Hamilton, Secretary State Board of Health, Richford, Vt. :

DEAR DOCTOR—At the house of Daniel Mahoney, Allen street, Ward 11, there is a new case of varioloid, which was reported by Dr. J. D. Hanrahan to Dr. J. E. Thompson, the health officer at that time, March 29th. I reported this case to-day to Dr. Caverly, and he requested me, fearing that it had not already been done, to report it to you. This new case is in the person of Mrs. Daniel Mahoney, mother of the boy sick before, and is the second in this same house. This new case is a light form of the disease, and the patient is doing nicely. All proper precautions have been taken. I would kindly request you to send me all blanks and circulars of instructions you may have and that are necessary for my position. Have you any cards or posters that could be used as danger notices for quarantined dwellings? With an assurance of my best wishes, I remain,

Respectfully yours,

WILLIAM M. STEARNS, M. D.,

Health Officer.

NORTHFIELD, VT. }
April 5, 1893. }

State Board of Health, Dr. J. H. Hamilton, Secretary :

DEAR SIRS—I do hereby decline to serve longer as health officer for the town of Northfield. I would recommend D. Johnson, M. D., for that position.

Very truly,

J. H. WINCH.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., April 11th, 1893. }

J. H. Winch, M. D.:

DEAR DOCTOR—Yours received saying that it is your wish to discontinue as health officer, and recommending D. Johnson instead. While I regret very much your resolution, it is accepted and, as recommended, Dr. Johnson is appointed.

Will you kindly hand the same to him?

Sincerely,

J. H. HAMILTON, Secretary.

RUTLAND, VT.,
April 12th, 1893. }

Dr. J. H. Hamilton, Secretary State Board of Health:

DEAR DOCTOR—Can you inform me where to get transit permits—whether the State Board of Health furnishes them, or whether each town furnishes for themselves? If the State board furnishes them, will you please send me some at once by return mail, as I have applications for them every few days.

Yours fraternally,

WILLIAM M. STEARNS, M. D.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., April 15th 1893. }

DEAR DOCTOR—I sent you to day documents as requested.

Respectfully,

J. H. HAMILTON, Secretary.

BRIDPORT, VT.,
April 14th, 1893. }

Dr. J. H. Hamilton, Health Officer, Richford, Vt.:

SIR—There has been measles at the house of Mr. Seldon Z. Walker, and I am informed several cases of scarlet fever exist in the Solon Lapham neighborhood, all of the town of Bridport, Vt., that are not quarantined, but ought to have been. Also, there has been three cases of measles at the house of A. S. Petty of this town. I made complaint to the second and third selectmen to have Petty quarantined, so the disease would not get spread, for people were

going there, and Petty's folks going to other places, and it would give the disease a chance to spread. The second selectman said it ought to be looked after, but made no move. The third selectman said he would not quarantine, and he would not get fined, and would bet \$10 on the same; and now that the law has not been executed, I ask you to cause the law to be enforced in all the above cases.

The first selectman is Seldon Z. Walker, at whose house the measles occurred.

I saw Dr. M. D. Smith yesterday at Middlebury, Vt., and he requested me to inform you of the way that measles and scarlet fever were being done by, and you would look after the proper ones that should have caused a quarantine. Please let me know at once what you will do, and oblige,

Yours respectfully,

MELVIN H. WILKINSON,

Bridport, Addison Co., Vt.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT. }

Mr. Melvin H. Wilkinson :

MY DEAR SIR—Your letter and complaint received, and I have written Dr. E. G. Blaisdell, health officer, in regard to the matter, and I will ask you to consult him first. If necessary, some member of the board will visit Bridport.

Respectfully,

J. H. HAMILTON, Secretary.

WOODSTOCK, VT.,
April 17, 1893. }

J. H. Hamilton, M. D. :

DEAR DOCTOR—I send you a letter from Dr. Lazelle, and if you can tell him something that will help him out, or go and see to it yourself, I wish you would do so.

I have had complaint about the conditions at North Hartland, and thought I would go and see to it, but on thinking I do not quite know whether or not I can act as executive officer without you or not. How is it? Can I go with the health officer and sign in the name of the State board or as a member of the board, and make the matter legal? I remember something about the secretary of the board being the executive officer of the board, and whether that meant that it was for the purpose of prosecutions in the name of the board, or whether the secretary must sign all the orders

made by the board in connection with the health officers of the different towns. When shall we have our next meeting? I am in no hurry as long as this traveling lasts, still I think we ought to get together soon, as there are some questions that I would like to talk over with both of you. Did you write to the governor about our pay in the New York trip? I don't see why it cannot come out of that extra, for certainly it was an extra, and we need all the appropriation, perhaps, in our own State on our own matters. If the governor can be made to think it can be used without his previous order, it is all right. I don't know but we had ought to have written to him that it was necessary for us to go to New York, and had him given the order in advance.

Truly,

O. W. SHERWIN.

GRAFTON, VT., }
April 17, 1893. }

J. H. Hamilton, M. D., Richford, Vt. :

DEAR SIR—Is it necessary for a town Board of Health to meet and make any regulations? When any of the diseases which it is necessary to report are reported to the health officer, what shall he do? Suppose a person has been exposed to measles, and complaint is made by a fellow workman, what can a health officer do? Can the man be quarantined? For how long a time if he does not come down with the disease? When such complaint is made, and the health officer has to drive seven miles, who pays the expenses? What compensation does the health officer get? Can a man be quarantined after being exposed to any of the diseases named on back of "Report of Physicians to Health Officer"? In case of typhoid fever, what shall health officer do? Shall the house be quarantined? Shall the health officer report each case as it comes to his notice, or shall he wait and report in August? I ask these questions, as it is almost impossible for us to understand our duty from the law.

Respectfully,

DR. HALL STAPLES.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE, }
RICHFORD, VT., April 19th, 1893. }

Hall Staples, M. D. :

DEAR DOCTOR—I would say, replying to your letter of 17th inst., that the local board should meet, organize, adopt rules and regulations and fix compensation of health officers, which is, so far as I know, made according to regular fees of physicians. If an unpro-

tected person has been exposed to measles, and the health officer becomes cognizant in any way of the fact, such person should be quarantined until all danger is past for at least twelve days. The town pays the expense of all quarantine work, and you should charge for the miles traveled the same as in regular work. In case of typhoid fever, there should be notices posted up on the house, and those who have the direct care of the sick should not mingle with the public until thoroughly cleaned and disinfected. All the sanitary work of typhoid fever should be looked after by the health officer. Sec. 7 of the act explains the matter of reporting. Sec. 5 provides for the report of every case of specified diseases, etc.

Respectfully,

J. H. HAMILTON, Secretary.

BRIDPORT, VT., }
April 24, 1893. }

J. H. Hamilton, M. D. :

DEAR DOCTOR—Yours of the 21st inst. is received, and in reply will state that two families have had measles. Both contracted the disease in Crown Point, N. Y. They have fully recovered, and no one has taken it from them. Their children took it while attending school. They are of the best families in town. I quarantined them in this way: At the residence of one I had a notice put up, and directed them not to allow any one to enter or to go away without changing clothes. In the other family I did not put a notice, but gave them the same instructions, and I am informed by their nearest neighbor that they strictly obeyed orders. Their houses have been properly disinfected. Both live in the west part of the town. Two families have also had scarlatina. One in the extreme south part of the town contracted the disease from friends visiting them from Salisbury. The other family, in the extreme northeast part of town, do not know where they contracted the disease. In both cases I strictly quarantined them as soon as I decided upon the nature of the disease. One family has fully recovered, and has been properly disinfected, and the other family has not fully recovered. As soon as they do I will see that they also are properly disinfected. No one to my knowledge has taken either disease from the families in which it started.

Please write me wherein I have been remiss in my duty, and also please write me who made the complaint to you, so that I may intelligently look after any cases that have not come to my knowledge.

Yours respectfully,

E. G. BLAISDELL,
Health Officer for Bridport.

BENNINGTON, VT., }
 April 25, 1893. }

Dr. C. S. Caverly, Rutland, Vt. :

DEAR SIR—In the matter of Board of Health I have made no reports to you, although several isolated cases of diphtheria and scarlet fever have been reported to me. Each case has been attended to and the house quarantined, but I do not construe that law to mean that each case of diphtheria or scarlet fever is to be reported to the State Board of Health. Any information or matters of practice on this will be gladly received by me.

Please send me more supplies, particularly reports for doctors to make to me and copies of the act of the legislature, as I did not have enough to go around among all the physicians.

Very truly,

C. H. DARLING.

STATE BOARD OF HEALTH, }
 SECRETARY'S OFFICE, }
 RICHFORD, VT., April 30, 1893. }

C. H. Darling, Esq. :

DEAR SIR—Yours to Dr. Caverly, and referred to me, this day received. It is not expected that each case will be reported at once.

Weekly reports are all that is expected, so long or during the continuance of the disease. Supplies sent as requested.

Respectfully,

J. H. HAMILTON, Secretary.

WORLD'S COLUMBIAN COMMISSION, }
 CHICAGO, ILL., U. S. A., April 26, 1893. }

Dr. J. H. Hamilton, State Board of Health, Richford, Vt. :

DEAR DOCTOR—Will you permit me to remind you that some months ago I suggested in my circular, and also my letter, that each State Board of Health should send to me a full set of their reports and publications, to be included in the library of the Bureau of Hygiene and Sanitation.

Some of the States have signified their intention of placing their reports in connection with their own exhibit. While this is entirely desirable from the State point of view, I venture to think that, from that of the general public, it would be more desirable to have all of the reports placed together.

Should your State be among the number that have decided to have a special exhibit, may I ask you to be kind enough to send me at once a duplicate set of reports and publications. If you are not exhibitors, will you please send reports and publications immediately. If you have already attended to these items, please cancel this letter, and allow me to remain,

Yours truly,

F. W. BREWER, M. D.,
Superintendent.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., May 1st, 1893. }

F. W. Brewer, M. D., Superintendent Bureau of Hygiene and Sanitation:

DEAR SIR—I have the honor to acknowledge the receipt from you asking for copies of reports and publications of our board. This is the first intimation I have received that they were wanted. I sent them by mail to-day.

Very truly yours,

J. H. HAMILTON, Secretary.

EAST CALAIS, VT.,
April 29, 1893. }

J. H. Hamilton, M. D.:

DEAR SIR—The Board of Health for this town has been called on to inspect some horses owned by the Hawkins Brothers. They were the owners of eleven horses, which had been kept in the basement stables of their barn (which are very low in the wall and improperly ventilated), standing on several inches of manure. On the 20th of this month these horses commenced to come down sick and die in two or three days. The veterinary surgeons called to see them differ as to the nature of the disease. One claimed they were poisoned by eating rusty oat straw, and that it was not contagious. Another claimed it to be *black diphtheria*, and notified me, through the telephone, that the said Hawkins Brothers were suffering from black diphtheria also, and further requested me, as health officer for this town, to go and examine the horses and order them to be killed. There are no other horses reported sick in the vicinity.

The Hawkins Brothers are suffering from what appears to be tonsillitis, and are able to be out and take care of their horses.

Now, under this condition of things, what is the Board of Health justified in doing? If this is a contagious disease, we want to hem it in at once; and, further, what jurisdiction has the Board of Health over sick horses and other animals? Now we want to do all we can to prevent the spread of this disease and to save the remaining horses now sick in this barn, and respectfully ask you to advise us in this matter at your earliest convenience.

Respectfully yours,

GEO. H. GRAY, M. D.,

Health Officer.

P. S.—Please send me circulars to distribute among the people.

[Respectfully referred to Cattle Commissioners.—J. H. HAMILTON, Secretary.]

STATE BOARD OF HEALTH . }
 PRESIDENT'S OFFICE, }
 RUTLAND, VT., April 30, 1893. }

Dr. J. H. Hamilton, Secretary, etc.:

DEAR DOCTOR—If you have either of the last two copies of the transactions of the American Public Health Association, I wish you would bring them to Burlington and let me see them.

I will meet you Tuesday at Essex Junction. If you come on the flyer, make your presence known then. I want to talk with you a little before we get to Burlington.

We are having an outbreak of scarlatina from an infected milk supply. A young farmer, who was convalescing, milked the cows and prepared the milk for distribution, and the cases so far are confined to those who drank it. It broke out nearly simultaneously yesterday and day before in five families. With the health officer, I visited the farm yesterday and quarantined the place. The attending physician declares that he did not have the disease, but there is no doubt of it. The chain of evidence is complete. Dr. Stearns will probably report the facts to you. The farm was in the town of Rutland, so that Dr. Reilly has the quarantine in charge. I have letters from two of the signers of the Middlebury document, asking that their names be stricken from the paper. The case will undoubtedly be well presented then.

Truly,

C. S. CAVERLY.

SOUTH WOODBURY, VT., }
May 1, 1893. }

J. H. Hamilton, M. D. :

DEAR DOCTOR—There is a case here, about four miles from me, which I will give you a history of, as follows : There is a family in the town of Calais called the Hawkins Brothers. They have been raising nice blooded horses for the past six years. They finished off box stalls in the basement of their barn, where it was dark and damp, without any ventilation. They had eleven horses, two cows, one yoke of oxen and four sheep shut up in these prison walls.

They have bred there the worst kind of malignant sore throat. As laid down in the Manual of Veterinary Practice, page 509, we would call it diphtheria malignant.

The first horse was taken Thursday, the 20th, with difficulty in swallowing. In twenty four hours he was dead ; and two more were taken in the same way, and only lived about twenty-four hours. Then there were six more taken. I was there last Friday, the 28th, to see the men. They had sore throats, and a good deal of membrane in them. One had sore eyes. They were swollen so bad he could hardly see out of them. After treating them I went to the barn and helped draw out four dead horses, making in all seven—two more sick and two yet to come down. I opened their throats and found them solid full of yellow diphtheretic membrane, extending nearly to the stomach. In two hours after one died he would be mortified all over.

They have a number of very nice blankets, which they used about those horses, and are now hung on the fences airing. All the foul discharges are thrown out at the door, hereafter to be spread broadcast.

I have been demonstrator in a dissecting room two years, and the odor is perfumery compared to this barn. The school house is within seventy-five rods of the barn, and neighbors are nearer by, but no one dares go there. One of the selectmen lives within sixty rods and will not allow one of the Hawkins to come there, for fear they will bring it in their clothes.

I immediately notified the health officer of the town, and he claims he has nothing to do with the case unless it begins to spread.

Please write me whose business it is, and what should be done in such cases, and you will greatly oblige me.

Yours respectfully,

R. W. LANCE.

[Respectfully referred to Cattle Commissioners.—J. H. HAMILTON, Secretary.]

(5)

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,
PORT OF NEW YORK, N. Y., May 3, 1893. }

To the Secretary State Board of Health, Montpelier, Vt. :

List of immigrants landed from vessels who, either on the voyage or at time of arrival, have been infected ; also those arriving from ports where contagious diseases prevail :

Name, Lars Larson ; destination, Brattleboro ; arrived from port of Glasgow on ship " Grecian ;" disease prevailing on ship, small-pox.

One case of small-pox developed during voyage. Patient was isolated and removed to hospital at quarantine.

DR. J. H. SENNER, Commissioner,

per R. Jahn.

WINDSOR, VT.,
May 5, 1893. }

Dr. C. S. Caverly, President State Board of Health :

DEAR DOCTOR—We have had much diphtheria in this town. The health officer has quarantined some of our citizens and ordered furniture and clothing destroyed.

Now who is to pay for this ? I do not understand that the town is responsible, but if other towns are paying these bills, I do not think that our board of selectmen wish to evade such payment.

Again, where there is an incorporated village, and the sickness is in the village, and expense is made, is the village or the town to pay ?

You may think it strange that I ask these questions, but I want to know how other towns have decided these points.

I have thought that the law is not plain as to which, the town or village, is to pay such expenses, including the expenses of such officer.

I am, very truly yours,

J. C. ENRIGHT.

Has any town paid for loss of time of men quarantined ?

STATE BOARD OF HEALTH,
PRESIDENT'S OFFICE,
RUTLAND, VT., May 6, 1893. }

Dr. J. H. Hamilton, Secretary :

DEAR DOCTOR—I have written Enright that it is customary, I think, for *towns* to bear this expense. Will you write him your experience.

C. S. CAVERLY.

OFFICE OF THE COLLECTOR OF CUSTOMS,
PORT OF BURLINGTON, VT., May 8, 1893. }

Dr. J. H. Hamilton, Secretary State Board of Health, Richford, Vt.:

SIR—Mr. Arthur has reported to me your conversation with him in relation to certain precautions against infection, deemed important by you.

I am willing to assist and co-operate with the State Board of Health for the protection of the frontier to the extent of my authority.

Not considering myself authorized to detain baggage for sanitary inspection under existing arrangements, I referred your request—that I would direct the custom officers to detain the baggage of immigrants until it had passed a satisfactory sanitary inspection—to the Treasury Department, for instructions in regard to compliance with your request, and I have as yet received no instructions in regard to the matter.

I now understand that you will be satisfied if I direct the train inspectors to report to you any baggage of immigrants from Europe found on the trains without a certificate that it has passed a sanitary inspection at Canadian port of arrival.

If correct as to this, and if you will make a request to me to the above effect, I will instruct the train inspectors to report to you any steamer baggage coming from Canada which does not bear evidence of having passed the medical inspection which is now conducted by United States officers at Halifax and Crosse Isle.

Respectfully yours,

G. G. BENEDICT, Collector.

MANCHESTER, VT.,
May 8th, 1893. }

To the State Board of Health:

GENTS—I take great pleasure in endorsing the name of Mr. George Smith as health officer for the town of Manchester. I have known him more than twenty years. He is a wide-awake, careful man—one who will look at a question carefully before deciding, and when his decision is reached he will be fearless in carrying out measures to suit the case. He will be ready to take advice, and when necessary will call in medical men to his assistance. There are five physicians in our town, and under the old law I held, by appointment of the selectmen, the position of health officer for several years. No other physician in the town would have been appointed by the selectmen. It is better for our town that a layman act as health officer, as the physicians will report to him more promptly than to any one in the profession.

Very respectfully yours,

L. H. HEMENWAY, M. D.,

per M. R. H.

MANCHESTER, VT., }
 May 8th, 1893. }

J. H. Hamilton, M. D. :

DEAR SIR—Your esteemed favor of the 4th is this morning received.

I am *very* sure Mr. George Smith would make a most excellent health officer for this town. Mr. Smith has had charge of the Dellwood cemetery for many years. He is a well-informed man, cool-headed, and of good judgment. I will try and find out if any doctor would take the position, but I would not if I was a doctor, and I don't think it would be as well for the public interest that a doctor is health officer, provided a good layman can be found ; and Mr. Smith is just the man ; he knows many things in relation to diseases that many men know nothing of.

You can't do better, I am sure, and I don't believe you can do as well anywhere nearly in the town.

Yours truly,

C. F. ORVIS.

OFFICE OF THE COLLECTOR OF CUSTOMS, }
 PORT OF BURLINGTON, VT., May 13, 1893. }

Dr. J. H. Hamilton, Secretary State Board of Health, Richford, Vt. :

SIR—In compliance with the request conveyed in your letter of the 12th inst., I have directed the officers at the railroad ports to report to you any steamer baggage of immigrants not bearing evidence of having undergone medical inspection at Canadian quarantine stations.

It will be understood that the customs officers have no authority to detain baggage so reported, and if detention is necessary, it will have to be by order of your board.

Respectfully yours,

G. G. BENEDICT, Collector.

MARSHFIELD, VT., }
 May 29, 1893. }

James H. Hamilton, Secretary State Board of Health :

DEAR SIR—Last Monday night, May 22, two cases of diphtheria developed in this school district—village—two schools in session at the time. Dr. H. S. Carver, who is your appointee for the local Board of Health, reported them sure cases last Wednesday. Neither of the subjects were scholars, but a brother of one of the sick ones was attending school. He was kept at home, and in the family of the sick, till this morning—Monday—only six days from the time his brother was taken. Now, Monday, May 29, Dr. Carver tells

him he may go to school, and he came. It created a scare among the parents, and many were leaving the school. The school board sent him home. Does the local Board of Health properly guard against the spread of this disease in giving permission for one of the family to attend school and go at large while this disease is in the family? It is reported—and probably true—that the doctor makes no change of raiment while attending either family.

Very truly,

E. S. PITKIN,

Clerk of School Board.

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION, }
PORT OF NEW YORK, June 3, 1893. }

To the Secretary State Board of Health, Montpelier, Vt. :

List of immigrants landed from vessels who, either on the voyage or at time of arrival, have been infected; also those arriving from ports where contagious diseases prevail.

Name, Adam Szyual; destination, West Rutland; arrived from Bremen, on ship "Weimar;" diseases prevailing on ship, small-pox, measles and varicella.

Steamship "Weimar" is infested with small-pox, measles and varicella. Passengers were detained four days at quarantine. One hundred and sixty-one passengers are still held there under observation. Ship and baggage disinfected; patients isolated.

DR. J. R. SENNER, Commissioner,

per R. Jahn.

MANCHESTER, VT., }
June 5th, 1893. }

J. H. Hamilton, M. D., Richford, Vt.:

DEAR SIR—The case reported by this mail was brought here from Springfield, Vt., and our people here are all up in arms about it. The young man, who is now sick, was watching with Ernest Taylor, who died last week at Springfield, and fifteen minutes after Taylor's death the young man was on his way home to Manchester, with two others. It does seem as though measures ought to have been taken to prevent their traveling through the State so soon after the death of the Taylor young man. Trusting this matter will receive your attention,

Yours truly,

GEO. SMITH.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., June 7th, 1893. }

Geo. Smith, Health Officer :

DEAR SIR—I have written to the health officer of Springfield in regard to this business.

Respectfully,

J. H. HAMILTON, Secretary.

MANCHESTER, VT.,
June 13, 1893. }

J. H. Hamilton, M. D. :

DEAR SIR—The case of diphtheria previously reported is progressing favorably, and, I think, shall have no further trouble from same. The scarlet fever case reported to-day is a child, and is only a mild case.

Will you please send me some blanks of all kinds for distribution among doctors and others, and oblige,

Yours truly,

GEO. SMITH.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., June 15th, 1893. }

Geo. Smith, Health Officer :

DEAR SIR—Blanks sent to-day.

Respectfully,

J. H. HAMILTON, Secretary.

ST. JOHNSBURY, VT.,
June 17th, 1893. }

Dr. J. H. Hamilton, Richford, Vt. :

DEAR SIR—In view of the fact of a meeting of the State Board of Health about to be held at this place, I am requested by several of the inhabitants of this place, especially by those residing on Portland street, to call your attention to an establishment under the management of one Ed. Barrett, situated at the east end of said street, where the decomposed remains of animals are cooked, ground, etc., and parts not manufactured are thrown into the river, in violation of the law and to the danger and disgust of the inhabitants. A slaughter house in the same locality should be attended to also.

Very respectfully,

G. W. WARD.

MANCHESTER, VT.,
June 26, 1893. }

Dr. J. H. Hamilton, Richford, Vt. :

DEAR SIR—I learn this morning that scarlet fever has broken out in another family at the north part of our town, and is in charge of Dr. Clemons. This man, I am informed, has frequently said he would not report a case of any kind to the Board of Health, State or local, and he certainly has not reported his case to me. If possible I wish the State would make an example of this man, and compel him to do as the other physicians in this town are willing to do.

Have I the authority to send another physician to examine his patient and prove it is a scarlet fever case? Your advice in the matter will greatly oblige,

Yours truly,

GEO. SMITH.

The cases before reported are about over, and the means taken for the prevention of the diseases spreading have proved effectual so far.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., June 28th, 1893. }

Geo. Smith, Esq., Health Officer :

DEAR SIR—You would be justified in sending another physician to examine patient, so as to satisfy yourself of the course to pursue.

The matter of prosecuting for failure to report is in your own hands.

Respectfully,

J. H. HAMILTON, Secretary.

WHITE RIVER JUNCTION, VT.,
June 26, 1893. }

Dr. J. H. Hamilton :

DEAR DOCTOR—I return my certificate. I do not wish to serve any longer, as I have had some trouble in enforcing the law, and I dislike such trouble.

Very truly yours,

J. A. DAY.

WOODSTOCK, Vt., }
June 26, 1893. }

J. H. Hamilton, M. D.:

DEAR DOCTOR—Dr. Day of Hartford has been having something of a racket in trying to carry out the provisions of the law, and he wrote me the other night that as soon as he got out of the present case he should resign. He tried to quarantine a family, and the head of the house met him with a gun, and he called on the officer, and they had quite a fight to take their prisoner. This frightened the doctor, and he thinks he has had enough of the health officer business. I wrote him this morning that if he wished we would hold a meeting of our board at White River Junction and try to help him out. I think we had better do so as soon as we can. If Dr. Caverly has got home, I wish you would write him to meet us there. They appear to need us there as much as anywhere. They have an outbreak of diphtheria, and unless the authorities can stop it I fear it will go bad. In our law I see that health officers have the authority to furnish help, medicines, etc., but there seems to be no provisions as to who shall pay for the same.

I hope we can help out Lazelle of Plainfield, even if we have to make a test case of their slaughter house affair. Let us meet soon, so as to talk over some of those cases.

It will make no difference with me what days we meet now, for I have no pension business to see to now.

Truly,

O. W. SHERWIN.

WOODSTOCK, Vt., }
June 28, 1893. }

J. H. Hamilton, M. D.:

DEAR DOCTOR—I had a line from Dr. Day of Hartford, notifying me that he had sent in his papers. I will see if I can get Dr. Daley to act as health officer for a time. I think he will do it, and they are in need of some one at present, for they have some diphtheria there now, so I am told. I will go down this afternoon and see what I can do. I will see one of the selectmen and find out whether or not they mean to stand by the health officer, and whether they will work with Daley.

I have talked with the others, and none of them will take the office. Daley has sand enough, and ought to make a good officer.

I have not heard whether or not Caverly has got home, but supposed he must have done so by this time. Have you seen to the Plainfield business? If you wish, I will go up there with you some day. From what Lazelle writes, I should think they are rather too stubborn; but, perhaps, on the other hand, the doctor is stubborn.

Do you intend to go to the World's Fair, and if so, when? I now think I shall go in September, but perhaps by that time I shall conclude not to go at all. I supposed, in the winter, that I would be among the first to go, but as the time drew near I felt less inclination to go, and as the time draws on I feel that it will be a hard journey and hardly worth the sacrifice. I find that, as we grow older, we think more and more of the comforts of home, and the boarding out, with all its inconveniences, is not so inviting as it once was.

Truly,

O. W. SHERWIN.

WOODSTOCK, VT., }
June 29, 1893. }

J. H. Hamilton, M. D. :

DEAR DOCTOR—I enclose a line from Dr. Lazelle. You know the circumstances, so please advise him, either by mail or telegraph.

I have to-day been to White River Junction and appointed Dr. O. W. Daley health officer, in place of Dr. Day, who resigned. I think Daley will do the best he can.

I have not all the instructions necessary, so will you please send anything he will need? Everything is going well there, and the arrest of the man who resisted the officer has been a good thing for the place. He is under \$2,000 bonds for appearance in the courts, and they mean to push it.

Truly,

O. W. SHERWIN.

ST. JOHNSBURY, VT., }
June 30, 1893. }

Dr. J. H. Hamilton, Richford, Vt.:

DEAR DOCTOR—Typhoid fever is still prevailing among us to rather an appalling extent for the month of June, there having been seventeen cases this month. Our Board of Health is anxious to confer with the State Board of Health in reference to its cause and prevention. Will the State board meet us here at its earliest convenience to confer with us? I am very anxious that the full board be present.

Will you wire me the day you can all come, that I may arrange for a meeting with you of our full local board?

Yours respectfully,

G. B. BULLARD, M. D.,

Health Officer.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., July 3d, 1893. }

G. B. Bullard, M. D. :

DEAR DOCTOR—I will call a meeting of the board at St. Johnsbury, July 7th. Please notify all interested.

Sincerely,

J. H. HAMILTON, Secretary.

LINCOLN, VT.,
July 6, 1893. }

J. H. Hamilton, M. D. :

DEAR DOCTOR—I enclose report of typhoid fever, which is *not endemic*. Patient has been visiting in Burlington. Have directed them to bury feces and use perfect cleanliness. House is situated on bank of a large branch of the New Haven river. No spring or well below house. If these precautions are observed, I see no danger of infection.

Yours truly,

J. S. DODGE.

PLAINFIELD, VT.,
July 20, 1893. }

Dr. J. H. Hamilton :

DEAR DOCTOR—Will you come to Plainfield before very long ?

Sincerely,

W. E. LAZELLE.

STATE BOARD OF HEALTH,
PRESIDENT'S OFFICE,
RUTLAND, VT., July 25, 1893. }

Dr. J. H. Hamilton, Secretary, etc. :

DEAR DOCTOR—I enclose correspondence from Bennington. I have just sent Mr. Stillson his commission as health officer. Will you please send him twenty or thirty copies of the law ? I am out. I send also letter from Hinesburgh, with my reply on it. I was glad to hear about St. Johnsbury. I see Burlington has moved in the right direction also.

I will call a meeting at any time and place that you think necessary.

Truly yours,

C. S. CAVERLY.

BENNINGTON, VT., }
July 21st, 1893. }

*Charles S. Caverly, M. D., President of State Board of Health,
Rutland, Vt. :*

DEAR SIR—With reference to the health officer and the Board of Health of this place, I have to say that it probably will soon be necessary to begin prosecutions for violations of sanitary laws, and as such prosecutions would naturally be brought before the municipal court, of which I am the judge, it becomes advisable that I should resign the office of health officer for this town, owing to the conflict between the office of municipal judge and health officer.

I therefore hereby respectfully tender my resignation as such health officer to your board.

The office being vacant, I would respectfully suggest and recommend the name of Henry L. Stillson, editor of the Bennington Banner, to fill the vacancy, and for recommendations of Mr. Stillson, I would respectfully refer you to Dr. Rogers, Colonel Bates and Judge Carney of the probate court, all of this place.

Thanking you for your kindness heretofore extended, and hoping that Mr. Stillson will meet with your approval, I remain,

Very respectfully,

CHAS. H. DARLING.

BENNINGTON, VT., }
July 24, 1893. }

Dr. C. S. Caverly, President, etc.:

MY DEAR SIR—I had read the laws of 1892 and charter of our village relative to Board of Health, but had not before that of 1886. After consulting with Dr. Lyman Rogers *et al.*, I write to say that I will accept the office of health officer, and do the best I can towards a "fearless and impartial" administration of its duties.

It occurs to me that about the first thing I will do is to serve notice on the local physicians, etc., of my appointment, and would like fifty copies of the pamphlet to enclose to them, and to other parties I may have occasion to call upon. Dr. Rogers says *his* copy is mislaid. Others may also be lost, and it will serve to introduce the subject. I shall come up some evening soon to see you; cannot tell just now *when*, but should be obliged to go up on our 6 10 P. M., returning at midnight. This will give us from 7.30 to 11 30 to discuss the points. Saturday of this week will probably accommodate me best—cannot have Wednesday, Thursday or Friday—and our trustees have their regular meeting next Monday, so, as I wish to lay some matters before them, Saturday will be in time.

Very truly yours,

H. L. STILLSON.

BENNINGTON, VT., }
 July 26, 1893. }

Dr. C. S. Caverly, President, etc.:

MY DEAR SIR—The appointment of health officer of Bennington village and town was received by me last evening, and I have the documents and record books from Judge Darling, my predecessor.

I want fifty copies of the pamphlet of Board of Health laws, to use as occasion may require; fifty copies of Circular No. 4, as we have one case of diphtheria, and I see by the records that during the spring there were several such; and about that number of letter heads and envelopes. The latter, I just as soon use the State Board of Health headings, but some official stationery I should have. There will need to be one or more prosecutions, and the notices are more potent when written on proper paper and envelopes. I have but *one* copy of No. 4, and ought to give that to the party where the diphtheria case exists to enable them to clean up. Please respond at once.

Cordially yours,

H. L. STILLSON,
 Health Officer, etc.

It might be well to send me a few copies of all your circulars. I see there are less than a dozen physicians' reports. Eight doctors might soon use up that number.

Circular No. 5 would greatly assist me. I want one hundred of them to use, as we haven't any local regulations, and until we get some these will do to make tenement owners clean up.

H. L. S.

HINESBURGH, VT., }
 July 24th, 1893. }

Dr. C. S. Caverly, Rutland, Vt.:

DEAR DOCTOR—I write to ask if whooping cough is a disease that the attending physician should report to the health officer; if so, and he did not report such a case, would you subject him to a fine?

Yours fraternally,

H. E. HUNT.

STATE BOARD OF HEALTH, }
 PRESIDENT'S OFFICE, }
 RUTLAND, VT., July 25, 1893. }

Dr. Hunt:

I enclose copy of report of physician, on back of which you will observe a list of diseases, among which is whooping cough; so I have only to answer both of your questions in the affirmative. It should be reported, and, if not, the offending party should be fined.

Truly yours,

C. S. CAVERLY.

LYNDONVILLE, VT., }
 July 25, 1893. }

Dr. J. H. Hamilton, Secretary State Board of Health :

DEAR SIR—Please send me blanks for physicians' reports to health officer.

We are having some diphtheria here in Lyndonville. There have been seven cases recently, two fatal. At the present time there are three cases, one of which will probably prove fatal. The cause is probably poor sewerage. All seven of the cases have been on streets not connected with the sewer. We are using our best efforts to prevent the spread of the disease, and are hopeful that we shall escape an epidemic.

Yours truly,

DR. J. W. COPELAND,

Health Officer.

STATE BOARD OF HEALTH, }
 PRESIDENT'S OFFICE, }
 RUTLAND, VT., July 26, 1893. }

J. H. Hamilton, Secretary, etc. :

DEAR DOCTOR—When I received your letter this morning I at once telegraphed Sherwin, asking him if he could meet us at Montpelier Friday, and if so, to wire both you and me. I did this because it occurred to me that Friday was the day the medical society over there, of which he is president, met at Hanover.

I have as yet heard nothing from this telegram, but will hold myself in readiness to respond if he can go. If he wishes another date, I will go if possible, though I am very full of business.

Truly,

C. S. CAVERLY.

LYNDONVILLE, VT., }
 July 27, 1893. }

J. H. Hamilton, M. D. :

DEAR SIR—Yours of yesterday received. You say you have no report from me since my appointment, which is true. The fact is that we have had nothing in particular to report—a few cases of measles, mild scarlet fever, chicken pox and typhoid fever. We have been very free from serious contagious disease. I may be mistaken, but, as I understood the law, health officers were not expected to report the ordinary contagious diseases unless they were of epidemic and serious type, but were expected to report at once the diseases mentioned in Sec. 5 of the act of 1892—small-pox,

etc.—and that in August of each year they were to make a general report of the prevalence of diseases and the general sanitary condition of the town. If I am mistaken, please inform me what you desire, and I shall be pleased to follow your instructions. In regard to the diphtheria, there have been eight cases, three deaths, and I fear another one will die. One died from croup, two from the intensity of the poison. We isolate the patients as much as possible, fumigate the premises with burning sulphur, and are trying in every way to stop the spread of the disease. I called a village meeting last evening; had a very good attendance. I asked the meeting to vote to lay at once a sewer on East street, where the disease is prevailing, and got a unanimous vote to that effect, and work will commence right away. Nearly all the families on the street are French, and many of the tenements are small and crowded. I have strong hopes that we will prevent the spread of the disease.

Yours truly,

J. W. COPELAND,

Health Officer.

BENNINGTON, VT., }
 July 29th, 1893. }

Dr. C. S. Caverly:

MY DEAR SIR—I think I cannot come up this evening, as anticipated. I have been health officer two days and have received reports of three cases of diphtheria—all, however, confined to two families, one locality, and no deaths. With the local board, we shall go to-day about town to see to the “clean up” and preventive measures. The first case of diphtheria, as near as I can ascertain, came from North Bennington. I see by my commission that it is the “village and town of Bennington.” According to that, I have no jurisdiction in North Bennington. They have a local Board of Health, an act of 1892, and are an incorporated village; hence I would have no power there. I understand that North Bennington has had more or less of diphtheria for a year or so, and it would appear that, although none is reported to-day, the board did not do very thorough work, else why was a patient just recovering allowed to come from there last month and expose us? Possibly you may care to issue me another commission, dated July 25, stating for villages of Bennington and North Bennington and town.

Very truly,

H. L. STILLSON,

Health Officer.

BENNINGTON, VT., }
August 1st, 1893. }

Dr. J. H. Hamilton :

MY DEAR SIR—I need those laws, rules of the State board and Circular No. 4, relative to diphtheria, *very bad*. Our people do not seem to know what to do. I find that a copy of the laws, enclosed in notice to abate nuisance, renders my work much easier.

I sadly need a copy of laws of 1836. Mine was burned when our office was destroyed last February. Can you supply me a copy, as in it is an amendment to village charter relating to our powers as Board of Health for Bennington?

This case of diphtheria was imported from North Bennington. If I have jurisdiction, I shall go over and stir them up.

Cordially,

H. L. STILLSON,
Health Officer.

STATE BOARD OF HEALTH, }
SECRETARY'S OFFICE, }
RICHFORD, VT., August 1st, 1893. }

H. L. Stillson, Esq., Health Officer, Bennington, Vt. :

DEAR SIR—Your favors of the 26th and 29th, also report, duly received.

Enclosed you will find appointment as health officer of the village of North Bennington, as requested.

I send you by express package of circulars, etc. I think I have enclosed everything issued from this office for the instruction and use of health officers.

No stationery is issued.

Kindly acknowledge receipt of the above.

Yours, etc.,

J. H. HAMILTON, Secretary.

LYNDONVILLE, VT., }
August 4th, 1893. }

Dr. J. H. Hamilton, Secretary State Board of Health :

DEAR SIR—There are quite a number of dwellings in this place *not* connected with the sewer, where there is a good opportunity to do so. Is an order from the local Board of Health sufficient to compel them to connect in case the owners object? Every one ought to be compelled to connect in some way.

We have had but one new case of diphtheria and no deaths since I wrote you last.

Yours truly,

J. W. COPELAND,
Health Officer.

STATE BOARD OF HEALTH,
 SECRETARY'S OFFICE,
 RICHFORD, VT., August 7th, 1893. }

J. W. Copeland, M. D. :

DEAR DOCTOR—I would say, in reply to your letter just received, that unless your village ordinances provide for compelling connection with sewers the local board is powerless.

You can, however, prevent a nuisance.

Respectfully,

J. H. HAMILTON, Secretary.

BENNINGTON, VT.,
 August 5, 1893. }

Dr. J. H. Hamilton :

MY DEAR SIR—The package of supplies came safely, and its contents are quite acceptable. The former incumbents, in connection with the trustees of our village, have used up the appropriations to such an extent that I do not really know whether we can get a local publication of the rules or not, hence the few copies of Circular No. 5 will hardly last at all. We have fifteen physicians in town, and each should possess a copy, as well as there should be a few to hand out to now and then a party. As there were only eight in the package, you see I am short-handed. Dr. Caverly indicated very kindly the way this office is administered in some other localities. I accompany the notices of violations of health laws with a copy of the pamphlet laws of 1886, 1892, and the circular bearing upon the specific subject. It works well thus far, and those people I was told would not only pay no attention, but insult me, are among the first to comply and thank me for the information.

About what time in August would you like the annual report? Do you have blanks for it? In a couple of weeks I shall have been around, so I can give an intelligent idea of our sanitary condition. You see we got enough of our trustees to consent to print stationery, and did not wait. The enclosed is the legal notice we are serving. In this village I have to be governed by special acts of the legislature, No. 226 of 1884, No. — of 1886, etc., as well as those of general effect.

Cordially yours,

H. L. STILLSON,
 Health Officer.

BENNINGTON, VT, }
August 9th, 1893. }

Dr. J. H. Hamilton :

MY DEAR SIR—We seem to have stamped out diphtheria in this village, unless it is again imported. The report herein is in the same locality that was infected earlier and from whence our village was exposed about the time I came to office. There is not a little criticism about quarantine out on the farms, but on goes the yellow card, without exception, as long as I remain in office.

I hope you will hurry forward Circular No. 10, superseding No. 5, as I find it helps me to hand out the law and the gospel. I have to-day got twenty-five people cleaning up. Numbers of these did not appear to heed the local board.

Very truly,

H. L. STILLSON,

Health Officer.

When you send me No. 10, send enough to give our doctors, the selectmen, two boards of trustees, and a few other copies. I want some of the pamphlet laws as well. Our doctors will soon need some more report blanks if we continue to have cases. There are fifteen physicians in town.

NORWICH, VT., }
August 28, 1893. }

J. H. Hamilton, M. D., Richford, Vt. :

DEAR SIR—I herewith send you my report as health officer. It is my first, and not very elaborate, but covers all the ground.

As I am writing I will improve the opportunity to ask for information that I am unable to obtain for myself.

The point on which I want enlightenment is this: If a man is able to pay all his bills, and makes no application to the town for help, can he, after having been quarantined on account of sickness (diphtheria) in his family, make the town pay all bills contracted during said sickness by virtue of having endured said quarantine? If so, will you kindly inform me where I can find the law for it?

Yours very truly,

S. H. CURRIER.

STATE BOARD OF HEALTH, }
SECRETARY'S OFFICE, }
RICHFORD, VT., August 31st, 1893. }

S. H. Currier, M. D. :

DEAR SIR—The question as to payment of bills in case of quarantine is frequently raised. The law does not provide for the payment of bills incurred in such cases where parties are able to pay.

Respectfully,

(6)

J. H. HAMILTON, Secretary.

BENNINGTON, VT.,
 Sept. 2, 1893. }

Dr. C. S. Caverly :

MY DEAR SIR—I have just completed the task of writing to all our churches, schools, libraries, places of amusement, etc., to comply with Rule 8 of Circular No 10. It takes over 30 letters to do this here. I enclose you the blank certificate that has been furnished our physicians. How do you like it? In my report Aug. 31st to Dr. Hamilton I find we have cleaned up 85 cases of nuisance since July 25th, the date of my appointment. Since Aug. 2d no contagious disease of any sort has been reported in this village. We have had three cases in town, but none serious but the diphtheria case now in hand.

Very truly yours,

H. L. STILLSON,

Health Officer.

I found that the child did not die of contagious disease, and ordered it buried at once, and it was done.

BARRE, VT.,
 Sept. 9, 1893. }

J. H. Hamilton, M. D., Richford, Vt. :

MY DEAR DOCTOR—Enclosed find copy of notice which I have caused to be printed for the purpose of handing to the property holders violating the named Rules and Regulations.

The Special Order No. 1 is what you suggested when here.

Respectfully,

C. F. CAMP.

HEALTH DEPARTMENT.

To.....

You are hereby notified that the State Board of Health have promulgated and established for the better preservation of the public health the following Rules and Regulations :

No. 13. Whatever renders soil, air, food, water or other drink unwholesome, is declared to be a nuisance and liable to breed or spread epidemic diseases.

No. 14. Whatever building, erection or part or cellar thereof is overcrowded or not provided with adequate means of ingress or egress, or is not sufficiently supported, ventilated, sewerd, drained, cleaned or lighted, is declared to be a nuisance.

No. 15. The collection of refuse matter in and around the immediate vicinity of any dwelling house or place of business, such as swill, waste of meat, fish or shells, bones, decaying vegetables,

excrement, or any kind of offal that may decompose and foster disease germs or give rise to unhealthy gases, shall be considered a nuisance, and must be removed or abated to the satisfaction of the health officer.

No. 25. No privy vault, cesspool or reservoir in which a privy, water closet, cesspool, stable or sink is drained, unless it is water tight, shall be constructed, dug or permitted to remain within 200 feet of any well, spring or other source of water used for drinking or other culinary purposes, unless the surface of such vault, cesspool or reservoir is at a lower level than at the bottom of such well.

No. 26. All privy vaults, cesspools and reservoirs shall be cleaned out at least twice a year, once in the spring, not later than the 15th of May, and once in the fall, not earlier than the 15th of October. From the 15th of May to the 15th of October they shall be frequently and thoroughly disinfected.

No. 27. All sewer drains that pass within fifty feet of any source of water used for drinking or culinary purposes shall be water tight; in sandy soil the limit shall be eighty feet.

No. 28. No sewer drain shall enter into any lake, pond or other source of water used for drinking purposes, or into any standing water.

SPECIAL ORDER NO. 1. It is further ordered by said State board, that every privy or water closet shall have a water-tight vault, which shall be kept covered with dry earth to keep odors arising from the same as innocuous as possible.

You are hereby notified that you are violating No. of the foregoing regulations, and subjecting yourself to the penalties of No. 93, Sec. 6, and No. 82, Sec. 3, of the Laws of 1892.

You are also hereby ordered to comply with the foregoing regulations at once.

By order of the State Board of Health.

C. F. CAMP,
Health Officer, Barre, Vt.

Barre, Vt.,189..

NATIONAL CONFERENCE OF STATE BOARDS OF HEALTH.

SECRETARY'S OFFICE,
COLUMBUS, OHIO, March 13, 1893. }

DEAR SIR—There will be a meeting of the National Conference of State Boards of Health in New York city, Fifth Avenue Hotel, Wednesday, April 5th, convening at 10 A. M. Port quarantine officials of the United States, Canada and Mexico, and the supervising surgeon-general of the Marine Hospital Service, are invited to meet with the conference. You are earnestly requested to be present, and to urge the attendance of other representatives of your board or State.

The object of the meeting is sufficiently indicated in the following program of business to come before the conference:

1. Report of National Quarantine Commission.
Dr. Irving A. Watson, New Hampshire, chairman.
Dr. Peter H. Bryce, Ontario, secretary.
2. (a) What are the present conditions, as to equipment and efficiency of administration of the quarantine stations on the seaboard of the United States, including improvements to be actually available during the coming season?
(b) What is to be the practice as to the inspection of persons and the disinfection of baggage, and what is the exact practical meaning of certificates issued to passengers and immigrants as to themselves and the disinfection of their effects? (To be responded to by port quarantine authorities of the United States.)
3. The same questions as to Canadian ports. (To be responded to by port quarantine authorities of Canada.)
4. The same questions as to Mexican ports. (To be responded to by port quarantine authorities of Mexico.)
5. (a) What available plan can be agreed upon which will pass a properly certified passenger or immigrant and his baggage and effects from his starting point in the United States, Canada or Mexico to his destination without unnecessary interference or delay?

(b) Is it necessary and practicable to disinfect the baggage of all immigrants and require certificates of disinfection?

6. In the emergency of an epidemic, would it be practicable to conduct a uniform system of inspection service at the various State lines, as against any given infected district, by means of which co-operation and mutual protection would be secured?

Propositions Nos. 5 and 6 will be referred to committees, appointed at the opening session, and requested to report to the conference in time for its action before adjournment.

7. (a) What has been done by each State Board of Health to protect the territory under its jurisdiction against cholera?

(b) What quarantine powers has each board?

(c) What are the present conditions in the principal cities and towns of each State? (This will be responded to briefly, preferably in writing, by each State board.)

8. In the event of cholera in this country, what requirements should be made of transportation companies to prevent spread of the disease. Dr. C. A. Lindsley, Dr. E. P. La Chapelle, Dr. F. W. Reiley, Dr. L. F. Salomon, Dr. R. M. Swearingen.

DR. J. N. McCORMACK, President,

DR. C. O. PROBST, Secretary,

DR. H. B. BAKER, Treasurer,

Executive Committee.

FIRST DAY'S SESSION OF CONFERENCE.

In response to above call, physicians from nearly every State through which cholera might enter this country met at the Fifth Avenue Hotel, New York, Wednesday, April 5, and compared notes as to their abilities to keep the scourge out.

They discussed the best methods for raising a barricade along the coast and the frontier so strong that the disease could not batter it down, and so compactly built that the disease could not crawl through.

Physicians and others charged with the enforcement of quarantine laws from twenty-eight States and from Canada, and those connected with the National Marine-Hospital Service, took part in the conference, which was the Seventh International Conference of the State Boards of Health.

They agreed that there was danger that cholera would appear in this country this summer, and, although the discussion was broad enough to cover quarantining against all contagious and infectious diseases, the fear of cholera kept coming to the surface.

The disinfected immigrant and his traps were put down as the chief danger, and the problem resolved itself into about this:

What is the best, the most systematic and comprehensive system of projecting enough disinfecting steam or gas through the immigrant, his clothes and his trunk to kill all the microbes that may

be lurking there, and how, when this is done, can he be certified to as healthy for the benefit of those who may come in contact with him as he goes to interior States?

Committees considered the subject. The conference will act on the reports of the committees before it adjourns.

Dr. J. N. McCormack of Kentucky presided. The following were present:

- Alabama—Dr. Jerome Cochrane.
- Connecticut—Dr. C. A. Ludsley.
- Delaware—Dr. E. W. Cooper, Dr. J. S. Vallandigham.
- Illinois—Dr. F. W. Reiley, Dr. John H. Rauch.
- Indiana—Dr. C. N. Metcalf, Dr. S. B. Taylor.
- Iowa—Dr. E. M. Reynolds.
- Maine—Dr. A. E. Young, Dr. Charles Smith.
- Michigan—Dr. H. B. Baker, Frank Wills, Dr. Hiram B. Miller.
- Minnesota—Dr. C. N. Hewitt.
- Kentucky—Dr. J. N. McCormack.
- Louisiana—Dr. L. F. Salomon, Dr. G. F. Patton.
- Missouri—Dr. Atkinson.
- New Hampshire—Dr. Irving A. Watson.
- New Jersey—Dr. Franklyn Gaunt, Dr. A. Clark Hunt.
- New York—Dr. Lewis Balch.
- North Dakota—Dr. De Vaux.
- North Carolina—Dr. H. T. Bahnson, Dr. R. H. Lewis, Dr. G. G. Thomas.
- Pennsylvania—Dr. Davis, Dr. McClelland, Dr. Benjamin Lee.
- Ohio—Dr. C. O. Probst.
- Rhode Island—Dr. Charles Fisher.
- Tennessee—Dr. Plunkitt.
- South Carolina—Dr. R. Selby.
- West Virginia—Dr. N. D. Baker.
- Vermont—Dr. Hamilton, Dr. Sherwin.
- Canada—Dr. F. Montizambert, Dr. Elzier Pelletier, Dr. E. P. La Chapelle.
- United States Marine-Hospital Service—Dr. Walter Wyman, Dr. Kingman.
- United States Navy—Dr. Albert Gihon.

The National Quarantine Commission's report was the first business on the schedule. Several members of the commission were present. They said that the commission had visited quarantine stations along the frontier and the seaboard, and had prepared a report. Dr. Peter H. Bryce of Ontario is the secretary. He was not present, and pending his arrival reports on the present condition as to equipment and efficiency of quarantine stations on the seaboard were made.

Dr. Salomon of Louisiana said the station at New Orleans was as good as any in the country. Just now preparations were being made for the fumigation of vessels. There are three stations, one at each entrance to the Mississippi. If a vessel were in good condition, she was allowed to pass; if she came from an infected port,

she must go to the main quarantine station. The system included shipping inspectors, whose business it was to inspect all vessels from infected ports after they arrived at quarantine.

Dr. Cochrane of Alabama said the quarantine system and the arrangements at Mobile were essentially the same as those at New Orleans.

Dr. Bremner of Savannah said that Georgia had no health board. A plant for a quarantine station was to be begun at once, however. It would be ready in June.

Dr. Selby of Charleston reported briefly that his city was well prepared to keep out cholera.

Surgeon-General Wyman gave in detail the facilities of the Marine Hospital Service for keeping out disease and taking care of diseased persons reaching the ports from the Gulf of Mexico to Philadelphia. There are fumigating chambers, hospitals, steaming apparatus, government vessels and piers for the anchoring of infected ships. One change was about to be made in Chesapeake Bay. A station was to be put in about half way between Hampton Roads and Baltimore. This was for vessels bound for Baltimore, and was largely in the interests of commerce. If vessels reached the lower station just at night, they would be passed to the upper station, and thus avoid lying over for so long a time at Hampton Roads. The same arrangement essentially would be made in Delaware Bay for vessels bound for Philadelphia.

The ports of Boston and New York were passed, as their health officers were not present.

Dr. Smith of Portland reported that that city had a fairly complete disinfecting plant, and that facilities for fumigating immigrants were reasonably good.

"Immigrants land at Portland, as a rule, only during those months when the St. Lawrence river is frozen," he said. "During the last season our regulations were so strict that the steamship companies transferred their immigrants to Halifax. Certificates are issued by the State Board of Health to all immigrants who have been inspected."

Dr. Thomas of North Carolina said that it was proposed to build a quarantine station at Wilmington.

"Money has been appropriated," he said, "but some demagogue has tied it up by inserting a proviso that it may be available only when cholera is 'imminent.' We would like to have this conference declare that it is 'imminent.'"

Dr. Montizambert reported on the quarantine facilities in Canada, with especial reference to the St. Lawrence river. There are stations at St. John, Halifax, Rimouski, Grosse Isle and the minor ports. The system along the St. Lawrence is such that the stations are in a series. At the outer one an inspection is made; at the second the immigrants are landed and fumigated, and at the third they are given certificates and allowed to proceed, unless evidence comes to light that they are infected. At Quebec there is a complete system of quarantine and fumigation. There are, at the main stations, hospitals and accommodations for all classes of passengers.

"There are five minor stations with quarantine officers," he said, "and at all the other stations customs officials have quarantine authority."

"Will all these equipments be available the coming season?" asked Dr. McCormack.

"All in the St. Lawrence are ready, and we expect all others to be ready by the last of April," answered Dr. Montizambert.

"Are the men sent by the United States Marine-Hospital Service acting in concert with the Canadian officials?" asked Dr. Wells.

"Two men have been sent there who work under the Canadian consuls," said Surgeon-General Wyman. "They issue certificates. A ticket certifying to the health of immigrants is given to each one that passes inspection."

"Have not from four to six hundred immigrants passed through Canada within a few days and come to this country without any certificate or anything else to show that they have been inspected?" asked Dr. Baker of Michigan.

"Do you know of any such thing?" asked Dr. Wyman.

"I do," said Dr. De Vaux of North Dakota. "Either six hundred immigrants were passed over the Canadian border without certificates or the six hundred lied. They were sent in on us through Winnipeg. Now, it seems to me the whole system is weak. The whole idea seems to be to get rid of the immigrants. Protection to the United States is not complete. The system as it now exists in Canada is a menace to us all. They are making North Dakota the gateway to this country."

"We do not doubt that some immigrants went through without inspection," said Dr. Montizambert. "We don't pretend to disinfect all immigrants and baggage from all ports. There would be no sense in disinfecting those who come from Scandinavia or England. There is no cholera there."

"But there are small-pox and typhus, which we don't want," said Dr. De Vaux. "We have had cases of typhus. That's why I say the system is weak."

"We are likely to make an error when we attempt to discriminate between ports," said Dr. Dudley of Pennsylvania. "It would be easy for an immigrant or his baggage to be transferred from Russia across the Baltic and embark on a ship sailing from a Scandinavian port."

"We must bear in mind the effects of the new law, which provides for inspection and certification on the other side of the Atlantic," said Dr. Wyman. "That ought to be some protection."

A report was read from Health Officer W. H. Ford of Philadelphia, in which he said that much embarrassment was caused there by proposed legislation changing the administration of the quarantine laws. None of the three or four propositions now pending was indorsed by the Board of Health, he said.

The conference then took a recess until evening.

Health Officer Jenkins and Dr. Cyrus Edson were at the evening session of the conference and invited the doctors to visit the quar-

antine station and North Brother Island. They will go to North Brother Island this afternoon. and to-morrow will go to the islands down the bay.

A committee, composed of Drs. Watson, Wyman, Rauch, Montizambert, Baker, Salomon, Plunkett, Probst and De Vaux, submitted a formal report on these questions, which they had been considering for several hours:

“What available plan can be agreed upon which will pass a properly certified passenger or immigrant and his baggage from his starting point in the United States, Canada or Mexico to his destination without unnecessary interference or delay?”

“Is it necessary and practicable to disinfect the baggage of all immigrants and require certificates of disinfection?”

A part of the report of the committee was characterized by President McCormack as an effort to stop all immigration. He favored it. It included resolutions, which were adopted. They were:

WHEREAS, Article 14 of the Immigration Regulations of the United States provides that each immigrant or head of a family, prior to or at the time of embarkation, shall be given a ticket in which shall be written his or her name, a number or letter designating a list, and his or her number in said list, for convenience of identification on arrival.

Resolved, That for the purpose of assisting the quarantine officers and health inspectors of the ports and places through whose jurisdiction said immigrants may pass, in determining the sanitary condition of said immigrants and their baggage, said ticket should also have printed thereon figures, letters or words as shall be hereafter provided.

That the ship's surgeon or agent shall indicate by punch or otherwise on said ticket the information hereafter to be specified, that the quarantine officer at the port of arrival and the inspecting officers at the several inspection stations in the interior States shall indicate in like manner the same information; said ticket to be carried by the immigrant from the port of embarkation to the point of destination, and there delivered to the proper health officers, provided that this provision does not conflict or interfere with the rules and regulations of the Treasury Department as already made.

Resolved, That the government of the Dominion of Canada and the Republic of Mexico be requested to adopt measures as similar as may be to the above.

Steamship companies shall be furnished with blank forms to be filled out by surgeon on voyage, dividing passengers into lists by State or province to which they are destined; such lists to be handed to the quarantine officer, to be by him punched, with the information derived at quarantine, enclosed in a stamped envelope, with the printed address of the executive officer of each such State or provincial Boards of Health, and at once posted. The State or

provincial officer, on receiving it, is to notify by télégraph, if necessary, the local health officer into whose jurisdiction each family or person is going.

Another resolution, which provoked an hour's debate, was this: "Your committee recommends that during the presence of cholera in Europe the disinfection of the baggage of all immigrants destined for this country should be required, unless disinfected at the port of departure, and that certificates therefor, showing the manner of disinfection, shall be pasted on the baggage."

Dr. Jenkins attempted to change the resolution to apply only to immigrants from infected ports. The doctors from interior and boundary States opposed his amendment, which was lost by a vote of 17 to 7.

Dr. Cochrane opposed the entire proposition. He said it was going into details too much. He did not believe there was much danger from cholera. Suppose it did get into certain European cities, there was not one chance in a dozen that it would reach this side of the water, and if it did, it could be easily stamped out, as was shown last year, when a few cases broke out in New York. The resolutions imposed too much trouble on health officers.

This aroused Dr. De Vaux of North Dakota.

"It strikes me we don't want to be too careful whom we impose on," he said. "If war were threatened, we would not sit back and say: 'Please don't.' We would get down the musket and fight. We are now threatened by a foe, and no one dare deny that we are not. It is best to shut up all the avenues of approach."

Nearly every one applauded.

After the resolution was passed, Dr. Jenkins made the best of it.

"We hope to be relieved of much of the work of disinfecting baggage by the Marine-Hospital Service on the other side of the water," he said. "So far as money goes, New York is ready to spend all that is necessary. It has enough, and is disposed to be liberal."

Dr. Watson, Dr. Jenkins and Dr. La Chappelle were appointed a committee to prepare a form of certificate and to confer with the Treasury Department on the subject of its adoption.

Dr. Cochrane, chairman of a committee of nine, reported on the practicability of conducting a uniform system of inspection service at State lines in the emergency of an epidemic, and upon this question asked:

"In the event of cholera in this country, what requirements should be made of transportation companies to prevent the spread of disease?"

He said the committee did not think it would be possible to conduct any uniform system of inspection at State lines against an infected district. It was the duty of each State to take its own precautions. Transportation companies should be required to use all possible precaution in keeping vehicles in healthy condition.

The conference was not in a mood to agree to this sort of a report. It wanted aggressive recommendations.

"That report," said Dr. Plunkett, of Tennessee, "is too weak. It hasn't any backbone. We want something with a backbone in it as big as a telegraph pole."

It was proposed to refer the report to the committee. Chairman Cochrane did not wish this, and said so plainly.

"I shall not serve on the committee if further consideration of the question is wanted," he said.

The conference insisted that it would not agree to this report, and it was voted to refer the questions to a new committee of five, which President McCormack said he would appoint to-day.

Dr. Jenkins then gave a brief statement with reference to the New York quarantine station.

"I think we are in a position to meet any emergency," he said. "The governor will put \$150,000 at our disposal. We had no money last year."

Dr. Cochrane reaffirmed his belief that there would be no cholera this year. There would be less of it in Western Europe. Arrangements for travel were much more perfect, and home points were much better guarded.

"If cholera comes, it will be by accident," he said.

"Governor Flower has assured me that the needed facilities for shutting it out will be given this year," said Dr. Jenkins.

The conference then adjourned until 10 o'clock Thursday.

SECOND DAY'S SESSION.

The international health officers visited quarantine under the guidance of Dr. Jenkins Thursday, and on the return trip expressed surprise at the condition of affairs there. They said the facilities in the lower bay for handling cholera were utterly inadequate. One delegate said Charleston, S. C., was away ahead of New York in quarantine improvements.

Twenty-eight sanitary experts boarded the steamer John E. Moore at Castle Garden about 10 A. M. Ellis Island was first visited. Dr. W. A. Wheeler showed the party how immigrants were landed. The visitors commended the system.

The boat touched at quarantine long enough to allow Dr. Jenkins to jump aboard, and then headed for Hoffman Island. After examining everything, Swinburne Island was visited. When the inspection was over lunch was served in the superintendent's house. The party returned to New York at 3.30 P. M.

On the return trip Dr. Jenkins explained in detail the methods employed at quarantine. A vote of thanks was extended to the health officer and Quarantine Commissioners Allen and Anderson.

A general discussion followed as to what the delegates had seen down the bay. Dr. Bell explained that the State of New York had paid \$1,500,000 for the plant investigated. This did not include land of any kind.

"I think that if the quarantine service could be divorced from politics," said Dr. C. N. Hewitt of Minnesota, "it would be an im-

provement. The department seems to be going ahead here in New York, but it is going ahead slowly. The authorities are doing all they can with divided authority."

Dr. Jerome Cochrane of Alabama said: "I think the present quarantine arrangements here are sufficient to meet ordinary demands, but they are not adequate to meet extraordinary demands. That is sure. The defense of the country against an epidemic depends upon the seaports, and of these New York is incomparably the most important. It is the main gateway. The other ports are but side entrances. We are assured that improvements are being made, and they should be of a character to meet any and all demands."

"I am surprised at the meagreness of the provisions we have seen to-day, in view of a possible epidemic," said Mr. Reeve of Wisconsin. "There should be greater facilities for doing the work that may be required."

Dr. C. N. Metcalf of Indiana said:

"With the present facilities quarantine cannot be thorough here except on shipboard. With Hoffman Island enlarged and disinfecting apparatus of the latest design added, there will be little cause for fear. The plant should be of the latest improved pattern. It is not. We expected to see the latest improvements, but we have not. I think Charleston, S. C., is ahead of New York in the application of the latest methods."

Dr. L. L. Whitesides of Indiana said: "I think the facilities here are all right enough, except in extent and methods of disinfecting. For this port the facilities should be as good as the latest sanitary discoveries could make them. They are not so at the present time. Yet the country must look to New York, as the main entry for immigration, for protection against an epidemic, whether of cholera or any other infectious disease."

Other delegates spoke in the same vein. Drs. Patten, Plunkett, McCormack, La Chappelle, Probst and Wells were appointed a committee to prepare resolutions on quarantine arrangements as found in the lower bay. At the evening session they presented the following:

Resolved, That it be expressed as the sense of this conference, representing the health authorities of the United States, Canada and Mexico, that the importance of having maintained at the port of New York a thoroughly efficient system of quarantine against imported pestilence is so great as to warrant the conference in offering certain urgent recommendations; therefore,

Inasmuch as the State of New York has assumed the responsibility of carrying on the important work, upon the equipment and efficiency of which other States must of necessity largely depend, the representatives of those States and communities feel themselves justified in urging that the present plant and appliances for the performance of quarantine at Hoffman Island be so enlarged and improved as to conform with the highest standard of modern improvement.

The conference recognizes the fact that the present quarantine administration has labored under the disadvantage of having to operate a system burdened with grave, inherited defects, and full credit is accorded for such good work as has been done by the present active quarantine officer. The conference is informed that several important improvements are contemplated, and that as soon as possible these will be instituted. It is intended to increase the area of Hoffman Island, the observation and disinfecting station containing the principal quarantine plant, from two acres to about ten.

The facilities for the disinfection of baggage and bedding are deemed entirely inadequate. The conference is informed that an extension of the same to about nine times its present capacity is contemplated, but in view of the constant menace from cholera the conference urgently recommends that these facilities be increased immediately.

If practicable, it is also recommended that a wharf in deep water be built for the better accommodation of vessels under treatment at Hoffman Island.

The supply of drinking water in cisterns is such as to render its contamination at the stations possible, and the necessity for a better arrangement is imperative.

It appears that no disinfection of immigrants' baggage other than on vessels has been practiced at the port of New York since last October, and this conference formally protests against the continuance of this neglect. The conference also deems it its duty to report that the certificates at present issued by the United States officials as represented by Dr. Wheeler of that service have no value whatever in guaranteeing any previous inspection or disinfection of immigrants' baggage, as this station is not designed for quarantine work.

The hospital at Swinburne Island is well equipped, and the crematory attached to same is one of approved construction.

Before the delegates started on their trip down the bay a meeting of the Sanitary Council of the Mississippi Valley was called at the Fifth Avenue Hotel. Dr. J. D. Plunkett of Tennessee acted as chairman.

Dr. Rauch stated the object of the meeting to be to secure the re-establishment of the immigrant inspection service, which had been found so useful in the small-pox epidemic of 1881-1883, the scope of the service during the present emergency to be in co-operation with State and municipal health authorities. This resolution was passed:

Resolved, That the Secretary of the Treasury be formally requested by the Sanitary Council of the Mississippi Valley to authorize the United States Marine-Hospital Service to establish a system of immigrant inspection service with especial reference to Asiatic cholera, and substantially on the lines of the service maintained with such beneficial results in 1882.

Referring to latest advices of the recrudescence of Asiatic cholera in Russia and other parts of Europe, and to the effective-

ness of a total suspension of immigration in such an emergency as now threatens, Dr. Reilly (Illinois) offered this resolution :

Resolved, That the secretary of the council is authorized and instructed to address a request, on behalf of the Sanitary Council of the Mississippi Valley, to the surgeon-general of the United States Marine-Hospital Service, asking that he forthwith make, or cause to be made, an investigation of the cholera situation in Europe, and especially in Russia, and, if the results of the investigation are such as to warrant the prohibition, in whole or in part, of immigration from any European country or place, the facts be certified up to the President of the United States, with a recommendation of prompt action by the Executive, under Section 7 of the quarantine act of February 15, 1893.

The council met again, after the trip to the lower bay, and listened to a report from Dr. F. W. Reilly of Illinois, on the sanitary condition of Chicago, with reference to the approaching World's Fair.

Dr. Reilly said at the outset that the Illinois State Board of Health did not share in the general apprehension and dread of Asiatic cholera. He continued :

“ Study of the history of the disease since its first introduction, in 1832, has led the board to the conclusion that cholera has lost its pre-eminent importance as a factor affecting the public health of the United States. Such study reveals the fact that each successive epidemic has invaded a relatively lesser area of territory, notwithstanding the increased facilities for intercourse and communication, has caused absolutely fewer deaths and has been more readily and certainly controlled. It shows that, whereas the epidemic, which began in 1848-'49—concerning which the first authentic records of cholera in Chicago are to be found—presented a death rate of one in every thirty-three of the population of that city, the mortality diminished in each successive visitation until in 1873—the last epidemic in this country—the death rate was only one in 7,000 of the population. The State Board of Health holds, therefore, that the measures of protection against the more generally prevalent and frequent diseases are sufficient for protection against Asiatic cholera.

“ What the board has done with direct reference to the present emergency has been to push with increased vigor during the past ten months the system of sanitary inspection of houses and premises, and the work of municipal sanitation instituted in 1885 by Dr. Rauch, the former efficient secretary of the board. The practical results of this effort vary, of course, with the degree of intelligence of the various communities. Illinois is neither very much better nor very much worse in that respect than any other State of equal age. The State is by no means a sanitary Utopia, but its sanitary condition has demonstrably improved during the last decade. It was estimated on April 1 that over three hundred and forty thousand house-to-house inspections had been made within the previous ten months, and on that day a requisition for 7,000

house-to-house visitation blanks for use in the city of Quincy was filled from the secretary's office, showing that the work was still being pushed to a satisfactory extent.

"Supplementing this abatement of nuisances and general sanitary improvement, the board has endeavored to educate the public into a knowledge and belief that Asiatic cholera is largely a bug-bear; that, given an unpolluted water supply, proper disposal of excreta and other cleanly conditions of life, there is less to be feared from this disease than from many other causes; while such cleanly conditions improve the general health and limit the prevalence of other diseases. It has been attempted to disabuse the public mind of the belief that cholera is a contagious disease and to inculcate the axiom of Ernest Hart and Florence Nightingale; to wit, that one may eat cholera or drink cholera, and so contract the disease; but one cannot 'catch' cholera any more than one can 'catch' a broken leg. Such knowledge should do much to prevent panic in the presence of the disease and to allay fear, which is acknowledged to be a potent predisposing cause of the disease.

"Attempt has also been made in this connection to prevent the sensationalizing of press reports concerning cholera; in other words, that, while it is possible we may have an occasional case of Asiatic cholera in this country during the coming season, the effect of such cases should not be aggravated by an epidemic of newspaper cholera. It may be added that a system of inspection of immigrants and their effects, arriving in the city of Chicago, has been maintained by the health department of that city since September last, and that the State Board of Health has aided in such inspections and in the necessary protective measures connected therewith.

"During the past fifteen months a great amount of effective sanitary work has been done in Chicago. Its health department, although hampered by a vicious system of political control of its employes, and by inadequate appropriations, has made a record in this period which is more than creditable. Its probable efficiency in the event of an outbreak of cholera may be inferred from its unparalleled record in dealing with small-pox. Notwithstanding the frequent introductions of this disease in 1892, in no instance was there a spread of the contagion from any given first case to another person. As to cholera, the department has made ample provision for isolation, disinfection of premises, surveillance of those exposed and care of the patient; and there is no obvious reason why it should not be as successful in dealing with a cholera outbreak, should such unfortunately occur, as it has been in dealing with outbreaks of small-pox.

"The Chicago water supply, concerning which there was serious ground for apprehension until the completion of what is known as the four-mile tunnel, is now claimed by competent experts to be the best of any large city in the world. To this general claim, however, exception must be made as to the supply furnished to the Hyde Park district. Owing to unavoidable delay in the extension of the Hyde Park tunnel to the projected distance, this supply is

at times and in varying degree affected by shore contamination. To guard against this danger all the water furnished from this source to the World's Fair grounds is sterilized by the Pasteur process; a supply from the Waukesha Springs has been piped to the grounds and vicinity, and the feasibility of extending a connection between the Hyde Park system and the four-mile tunnel supply is now being investigated. If this can be done, the Hyde Park tunnel supply could be abandoned, pending the completion of the tunnel extension.

"Before leaving this topic reference should be made to the favorable report of the London Lancet's special commission on the water supply of Chicago. Although the investigation is understood to have been made last autumn, since which time there has been much improvement, the commission reports that 'ill-informed rumor has magnified the faults of the water supply,' and adds that, 'The Columbian Exposition will be carried through without any outbreak of an epidemic.'

"This belief is based not only on the investigation of the water supply, but of the drainage and sewerage of Chicago, the condition of the far-famed Chicago river, Lake Michigan and of the sanitation of the city generally.

"Attention should be called to the result of the sanitary work of the Chicago Health Department during the last six years, as shown in the reduction of the death rate from the preventable diseases. The mortality from typhoid fever, for example, has been reduced 35 per cent., and the death rate from preventable diseases in general—the true test of the efficiency of a sanitary administration—has been reduced over 22 per cent. The general death rate of Chicago during 1892 was lower than that of any other city of like magnitude in the world, and it is claimed that the belief of the London Lancet in the healthfulness of Chicago is fully justified."

Dr. Reilly's report was met with a flood of questions as to the drainage of Chicago with reference to the water supply.

At the evening session of the general convention a letter was read from the inspector-general of health of Mexico, extending congratulations and regretting his inability to be present. Mexico, he said, would hold out a helping hand to a sister republic in organizing Boards of Health and quarantine at all seaports.

The following officers were elected for the ensuing year:

President, Dr. C. A. Lindsley of Connecticut; vice-president, Dr. I. A. Watson of New Hampshire; secretary, Dr. C. O. Probst of Ohio; treasurer, Dr. H. B. Baker of Michigan. The conference then adjourned, subject to the call of the executive committee.

Health Officer Jenkins, just after adjournment, made the following statement: "The suggestions offered by the committee on quarantine facilities in the harbor of New York are just what I have been advising ever since the cholera scare last year. They are needed. The cost of enlarging Hoffman Island will not exceed \$260,000. I am glad the whole matter has been gone into as thoroughly as it has. We do need better facilities, that I acknowledge, and I have advocated the means by which they can be obtained."

CIRCULARS.

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CIRCULAR NO. 4, ISSUED BY THE STATE BOARD OF HEALTH OF VERMONT.

PREVENTION AND RESTRICTION OF DIPHTHERIA.

Diphtheria is a contagious and infectious disease, attacking persons of all ages, but affecting children much more frequently than it does adults. It may be communicated from the sick to the well by means of persons, cups or other articles which pass from mouth to mouth, or through the medium of the air, or it may be spread by means of clothing.

So generally is diphtheria regarded as due to unsanitary conditions that by common consent it is classed among the "filth diseases;" and when we find it arising, apparently, independently of sources of infection, spontaneously, as it would seem, we may be pretty sure that something is wrong in the health conditions of the home where it is found.

The unsanitary conditions which seem to give rise to diphtheria may be in the direction of the food or water supply; the well may be too near the privy or cess-pool, or sink-drain, or barn-yard, and be polluted by soakage through the filthy soil; or the something wrong may be in the direction of the air supply; the air is re-breathed and poisoned, or a wet and foul cellar is under the house, or sewer gas goes into the rooms, from defective water closets or other fixtures, or from sink-drains, or privies, or cess-pools.

When once diphtheria has arisen, the law of simple contagion carries it to the rich and the poor, to the cleanly and the uncleanly, but not to all alike. Filth invites disease and gives its germs the most congenial soil in which to develop into pestilence; but cleanliness offers only barren ground for their development.

Diphtheria is a preventable disease. Proper preventive measures are almost invariably followed by the limitation of the disease to the first case or cases. **When diphtheria gets away from the primary cases and makes its escape upon the community, somebody is to blame.** The sooner we accept this as a sanitary maxim the sooner we shall begin to do our duty as individuals and as communities.

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PREVENTION.

When a child or young person has a sore throat he should immediately be kept separate from all other persons, except necessary attendants, until it be ascertained whether or not he has diphtheria.

Keep away from the sources of the contagion. Do not go where the disease is if you can help it; and, above all, do not let your children go where it is. If you do visit a case, bathe yourself, change and disinfect your clothing before you go where there is a child.

From the dwelling and its vicinity banish all sources of filth, whether of the ground, of the water or of the air. The ground under and around the house, if not naturally dry, should be thoroughly and deeply drained.

Cleanliness, absolute cleanliness, is its greatest foe. Therefore, whenever one case appears in a neighborhood, every householder in that community should make it a personal task to inspect his premises; clean and, where necessary, disinfect cess-pools, out-houses, farm-yards and cellars; remove all garbage and all decomposing animal and vegetable matter. Leave nothing about the premises that will furnish a breeding place for the germs of the disease.

Diphtheria does not come from far through the air; therefore do not shut up your houses tightly, thinking thereby to shut out the disease. By so doing you shut *in* the poison of rebreathed air, which paves the way and makes it easy for the poison of diphtheria to be taken.

All influences which cause sore throats probably tend to promote the taking and spreading of this disease.

Do not wear or handle clothing worn by a person during sickness or convalescence from diphtheria.

Beware of any person who has a sore throat. Do not kiss or take the breath of such a person. Do not drink from the same cup, or put anything of his to the mouth.

Mild cases of diphtheria undoubtedly pass often for ordinary "sore throat." The case may even be so mild as to not be kept from mingling with other children on the street, at school or at home. Do not, therefore, let children play or associate with those who have "sore throats." When the disease exists in a town, school teachers should question their pupils daily, and if a single case of "sore throat" is found, the child should be sent home.

Be sure that the drinking water and the milk are pure.

RESTRICTION.

As soon as it is found that a person has diphtheria he should immediately be separated from the rest of the family and put into a sunny and well ventilated room, preferably on the upper floor, and as disconnected as possible from other rooms, especially the living and sleeping rooms of children.

Before moving the patient into the room all needless articles, such as carpets, contents of wardrobes, etc., which would catch the infection, should be removed.

No other person besides the nurse or necessary attendants and the physician should be permitted in the room, and they should take special precautions not to carry the infection. Their communication with the rest of the family should be as restricted as possible.

Plain and distinct notices should be placed upon the premises or house in which there is a person sick with diphtheria.

The selectmen, or health officer, should immediately be notified and should co-operate with the physician to keep the disease from spreading. Children and parents from other houses should be warned; and if they needlessly and obstinately persist in coming they should be driven away.

Neither the nurses nor any other person should eat or drink anything in the sick room, or anything which has been there. Food which the patient has left should be burned.

Cats and dogs should be kept from the sick chamber, or, better, out of the house, for their fur can easily carry the infection. These animals, as well as some others, sometimes have diphtheria, and communicate it to children.

The dishes which the patient uses should not be used by others or washed with other dishes. They should be washed by themselves in boiling hot water.

The utmost care must be taken that the discharge from the mouth, throat and nose do not soil the room or its furnishings. These discharges should be received on pieces of cloth, and then burned. If this cannot be done, they should be thoroughly disinfected with Disinfectant No. 5, No. 6 or No. 2.

The discharges from the kidneys and bowels should be liberally treated with Disinfectant No. 5, No. 6 or No. 2, and not poured into the privy vault, but buried (if possible, two hundred feet or more from dwelling houses and water supply) or burned.

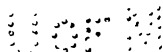
The bed and body clothing should not be mixed with the family wash, but should be put into boiling hot disinfectant solution No. 4 or No. 5.

No person from a house where there is diphtheria should go into public assemblies, such as schools, churches or concerts.

Persons who have had diphtheria should not mingle with the public, and particularly WITH CHILDREN, for some time after all traces of the disease have disappeared. As long as there is any discharge from the throat or nose there is danger. After the case is considered perfectly well, the person should receive a thorough bath, including the hair, and all clothing should be changed before being allowed to associate with others.

In case of death the body should be enclosed in a sheet thoroughly wet in Disinfectant No. 4 or No. 5, and put into a tight coffin, which should not afterwards be opened. The funeral should be strictly private, and in no case should children be permitted to be present.

After recovery or death, disinfect the room with Disinfectant No. 1.



DISINFECTION.

1st. Sulphur Fumigation.

To fumigate a room and its contents effectively steam should first be generated in the room by means of a kettle or basin of water and an oil stove or other stove. Two pounds of sulphur *at least* should be burned to each 1,000 cubic feet of air. Every opening in the room, flues, doors, windows, cracks, crevices, and even key-holes, should be carefully closed. The sulphur should be burned in an iron kettle or other vessel set in a pan or tub containing water to guard against fire. A little alcohol or kerosene may be poured upon the sulphur to help in igniting it. After lighting it, leave the room quickly and close the door tightly. Let the room remain closed for twenty-four hours or longer. Then open the windows from the outside, and air thoroughly for several days.

2d. For the Discharges.

Sulphate of iron (copperas), 3 pounds; warm water, 1 gallon; mix. This leaves rust spots on clothing.

3d. For Privies, Cess-Pools, Etc.

Sulphate of iron, 1½ pounds; water, 1 gallon; mix.

4th. For Clothing.

Sulphate of zinc (white vitriol), 4 ounces; common salt, 2 ounces; water, 1 gallon; mix.

5th. Corrosive Sublimate Solution.

Corrosive sublimate, 60 grains; permanganate of potassa, 1 grain; water, 1 gallon; mix.

Corrosive sublimate is one of the surest destroyers of disease germs known, but its dangerous, poisonous qualities make it unsafe for general use. It could be used instead of No. 2, or one-half this strength instead of Nos. 3 and 4.

6th. Chloride of Lime Solution.

Chloride of lime of the best quality, 4 ounces; soft water, 1 gallon; mix. This is one of the best and cheapest disinfectants.

7th. Heat.

Heat is the most certain disinfectant. Whatever is of no especial value should be burned. Other articles, such as bedding and clothing, should be boiled for at least one half hour. Still other articles may be subjected to dry heat or steam at a temperature of 212 degrees F. Immersion in the fourth or sixth solution will lessen the danger from infected clothing, until it can be boiled or burned, which should be done as soon as possible.

Some of these directions may seem extreme, but they are necessary, every one of them. It is some trouble to carry them out thoroughly but that is nothing compared with the possible result if you neglect them.

Be prompt and thorough in isolating and disinfecting every case of diphtheria! Be as thorough with a mild case as with a severe one! It is the same disease! Do not be frightened, but act intelligently!

This circular may not be useful now. Preserve it for possible future need.

Copies of this circular may be had of either member of the State Board of Health.

CIRCULAR NO. 5 is amended and reissued as Circular No. 10.

CIRCULAR NO. 7—PURE WATER AND HOW TO SECURE IT.

Food, air and water are the three essentials of life—pure food, pure air and pure water are the surest safeguards against diseases of every kind. Pure water is never found on the surface of the earth, but finds its way to the surface through springs and wells. Good, pure drinking water contains carbonic acid and atmospheric air in solution, gases derived from the earth through which it flows, and foreign mineral matter in solution which can be tasted.

The commonest impurities are decomposed organic matter, animal and vegetable; mineral impurities are occasionally found. Animal matter in a state of putrescence, when taken into the system, may produce fever or other symptoms. The constant use of such water sometimes causes disease even when the quantity is small. Some persons are more susceptible than others to the influence of this poison, their own system either causing or accelerating changes which had not been noticeable before the introduction of the disturbing element.

Decomposed vegetable matter acts in much the same way, disordering the system or causing special forms of disease.

Mineral impurities are suspended or dissolved mineral matter. These, if of sulphur or iron, although giving a peculiar taste to the water, are not injurious unless present in too large quantities. But even a small quantity of lead seriously affects the human system.

The taste of water fresh from the well is by no means a sure guide as to its purity. If it contains a large amount of organic matter just undergoing decomposition, there may be taste and odor, or its organic impurities may have been so far destroyed as to cause no unpleasant taste or smell, and yet it may remain dangerously contaminated.

The fact of water being AGREEABLE to those accustomed to its use is no indication of its purity. It may be CLEAR, yet not pure; apparently healthful, yet containing the germs of disease and death.

In speaking of this same subject, a noted surgeon of the United States army and sanitarian says: "To demonstrate the wholesomeness of a water supply which has been contaminated with sewage, it is not enough to show by analysis that it contains but a small amount of organic matter, but it should be shown at the same

time that none of the diseases which are generally recognized as transmissible by the water supply prevail in the district where the water in question is used. There are many difficulties in the way of effecting this demonstration, but chief among them is the well-attested fact that certain of these diseases frequently *do* prevail in the district where the water in question is used."

When it is known that a large quantity of an infected matter in a water supply will spread a disease with epidemic virulence it is not inconsistent with our knowledge of the essence of such diseases to infer that a small quantity, even though diffused through an immense volume of water, will strike its victim when the glass of water which contains the essential particle is ingested.

Every water supply should be *well protected*; the basin of a spring be kept free from all organic matter—its sides and edges should prevent the inflow of surface washings.

Wells should be lined, so as to exclude surface drainage. They should not be dug in the vicinity of large trees, as their roots may penetrate the clay and form channels, which admit of inflow of surface water. No matter how carefully the well may be lined, it should be at a proper distance (150 feet at least) from all sources of impurity.

Cisterns are much used as storage for drinking water. The purity of cistern water depends largely on the cleanliness of the shedding surface and conduits. The first water of a rain, especially after seasons of continuous drought, should not be allowed to flow into the cistern, and the main supply should be derived from long and heavy rains, rather than from occasional showers.

Cistern water requires filtering, and this is easily accomplished by putting a partition of lightly burned brick into the cistern. Such a filter should be frequently cleaned.

If a water supply be from a river, pond or lake, no sewage should be allowed to empty into them. The surface drainage of large towns and cities is sufficient to contaminate the water and endanger its use.

A public water supply should be frequently examined under different circumstances and from different locations. The general supply which has been good may come to be impure by the introduction of sewage. The pipes may become fouled or the reservoirs may contain growths of minute forms of plant life, or water long impounded in large quantities may become deadened for want of oxygen or air. Thus water from a good source may in its distribution become impure.

In the march of progress the wells and springs of sparsely settled communities give way to the aqueduct and public water supply. The selection of a village or city water supply is a matter of vital importance to the lives and happiness of its people. It is often made to depend more upon its feasibility from an engineering or financial standpoint than upon its fitness from a sanitary standpoint.

The pond, lake or stream that supplies a village is only a storage reservoir in itself. Its water is drained from a natural water-

shed, and this surface from which the water drains and filters to the main body used for a public water supply should be carefully watched.

It is well known that typhoid fever epidemics have frequently been traced to a single case near the source of such a water supply.

Communities whose water is derived from such sources should systematically examine through their water commissioners or other officers the country whose natural drainage is to the body of water used as a supply. In Massachusetts no drainage, sewage or refuse matter of any kind is permitted to be discharged into any water course or any of its feeders within twenty miles above the point whence the supply is taken. The twenty-mile limit is, of course, somewhat arbitrary, and might be modified by the size of the stream, its fall and other factors.

Vermont towns should not lack for good water supplies. But though our hills are sparsely settled, and the mountain brooks and ponds furnish apparently pure water, every such source should be officially examined often, and jealously guarded against pollution.

The test as to color, odor and taste will aid somewhat as indicating whether further examinations is necessary, or whether it is wise to use the water without the precautionary measure of boiling, filtering, etc.

Color test: Fill a clean, long bottle made of colorless glass with the water; look through it at some black object; the liquid should appear perfectly clear and free from all suspended matter. A turbid or muddy appearance indicates the presence of soluble organic matter or solids in suspension.

Odor test: Empty out part of the water, leaving the bottle half full, cork and leave for a few hours in a warm place. Shake the bottle and remove the cork, and critically smell the air contained in the bottle above the water. If it has any odor, especially if the odor be the least repulsive, the water is unsafe for use. Boiling water sometimes evolves an odor that otherwise does not appear.

Taste test: Water fresh from the well is usually tasteless, even though it contain some putrescible organic matter. Water for drinking purposes should be and remain tasteless, even after it has been warmed, since warming often develops a taste in water which is tasteless when cold. If water has a repulsive or even disagreeable taste, it should be rejected.

Another simple water test is Heisch's, which is made with sugar: Into a perfectly clean pint bottle put five or six ounces of the water to be tested, to which add ten or twelve grains of pure granulated sugar, tightly cork and set in a window exposed to the light, but not to the direct rays of the sun. The room should be moderately warm, say at a temperature of 70 degrees F. If in twenty-four or forty-eight hours the water becomes cloudy or milky, it is unfit for use.

After a few days, if the water be very bad, upon removing the cork it will emit the odor of rancid butter. The little specks settle to the bottom of the bottle, where they appear as white flocculent masses. This test does not always decide the question as to the

purity of water, for, while cloudiness in the water certainly indicates unfitness for use, a negative result does not *prove* the water to be good, as the test often fails to indicate organic matter really present if phosphate be absent.

Hager's test is a simple one, and is made in the following manner: Pour into a half pint of the water to be tested a tablespoonful of clear solution of tannin (a heaped teaspoonful of tannin to a gill of rain water). If no turbidity occurs within five hours, the water is good; if turbidity occurs within one hour, the water is decidedly unwholesome.

If there is the least suspicion that a water supply is impure from inflow of sewage or surface drainage, it should not be used until it has been *boiled* or *filtered*.

Boiling water for half an hour destroys all germs of disease and renders it safe for use. It is well to filter it afterwards, however, as it is thus aerated and made more agreeable as drinking water.

A simply and practical filter can be made from a bottle: Take a long-neck bottle; crack off the bottom by tying a string saturated with turpentine around the bottle at the point to be broken and set fire to the string, and the bottle will be ready for use. Place in the bottle a layer of cotton; the cotton should be worked in water, preferably warm water, in order to remove the air. Drop a wad of cotton into the neck of the bottle, so that the mouth will be covered; the layer of cotton should be from two to three inches in thickness. This should be well pressed down, not too tightly, else it might filter too slowly, neither too lightly, or the water may form channels and thus prevent its being filtered. When the filter becomes clogged it can be cleaned by boiling and rinsing, or perhaps it is as well to replace it with new.

A sheet of filtering paper, such as is used by druggists, and a glass or tin funnel, will furnish a good means for filtering water on a small scale. A fresh sheet of paper should be used every day.

The most reliable filter for general use is the "Pasteur Filter."

Copies of circular can be obtained of either member of the State Board of Health.

C. S. CAVERLY, M. D., Pres., Rutland,
J. H. HAMILTON, M. D., Sec., Richford.
O. W. SHERWIN, M. D., Woodstock.

CIRCULAR NO. 8—ON THE NATURE AND PREVENTION OF CONSUMPTION.

Consumption, phthisis, tuberculosis, have each the same meaning. The disease is caused by a species of bacterium, called a bacillus. This bacillus is in the discharges of the patient that has consumption; the discharges from the nose, the throat, the bronchial tubes and lungs, in the urine and stools. It may be in the flesh of animals suffering from the disease and in the milk of tuberculous cows. To produce the disease the bacilli must enter the air passages or alimentary canal of a *suitable subject*. In other words, the causes of consumption are two-fold: predisposing and exciting.

A. PREDISPOSING CAUSES.

Among the predisposing causes are these:

1. Heredity. Children of tuberculous parents present suitable soil for the growth of the specific microbe—*i. e.*, can easily acquire the disease.

2. Narrow and shallow chests. Persons who inherit or acquire such chests, who have small expansive powers, are good subjects for consumption.

3. Poor nourishment, scant clothing and damp, dark, ill-ventilated rooms. People who are constantly under-fed, whose clothing is insufficient for our winter and spring climate, and who work or sleep in small, close apartments, easily succumb to the poison.

B. EXCITING CAUSE.

The active poison which sets up the disease is the bacillus mentioned, and it may reach the victim in the dusty air of the sick room, the street or railroad car, the public hall, work shop and store; in fact, wherever the consumptive coughs and expectorates; or he may take it into his system with his meat or milk.

Consumption is an infectious and a contagious disease. Like all such diseases, it may be prevented.

Following the classification of its causes the rules for its prevention may be summarized as follows:

1. Persons whose parents, uncles or aunts, grandparents or brothers or sisters, have had consumption should avoid confinement with any one who has the disease. They should have open-air employment as much as possible. They should study means of developing the chest, keeping the digestive organs healthy; in fact, keeping in as good general health as possible.

2. Those who have narrow chests should adopt means to expand and develop the respiratory muscles. They should practice systematic inflation of the lungs in the open air. Stand erect, with shoulders and head thrown back, and draw in a deep breath slowly through the nostrils; hold it as long as possible, and then let it out gradually. Repeat this operation several times each day. Meantime, by accurate measurements about the chest, on the level of the nipples, observe the improvement in the powers of expansion.

3. Plain, nourishing food, woolen underwear (except, perhaps, in June, July and August) and confinement in dry rooms free from smoke and dust, are essentials to health which suggest themselves to everyone.

The management of those who have the disease, so as to prevent those with whom they come in contact from acquiring it, is the most essential point in preventing consumption.

Persons who have consumption should be isolated as far as practicable from those whose constitutions predispose them to the disease. Inasmuch as the sputum of the sick person contains the germs of the disease in great numbers, great pains should be taken to prevent careless expectoration upon floors where it may dry and easily become a part of the air of the room.

So many persons in the early stages of consumption are able to travel about and attend to their ordinary occupations, that everyone should understand how easily such persons can become sources of danger to others susceptible to the disease. They unwittingly spit upon the floor wherever they are, and the sputum, drying in time, is inhaled by some one in the dust-laden air, and becomes the mysterious factor in causing an unaccountable case of consumption.

Those who have charge of shops or factories should be sure no consumptive spits on the floor. The teacher in school should be on her guard. Those who control public halls, stores and cars, especially sleeping cars, should place cuspidores convenient to their patrons and be sure they always contain a disinfectant. The following solution is inexpensive and efficient:

Dissolve two drachms each of corrosive sublimate and permanganate of potash in a gallon of water. This solution should be kept in a cuspidore wherever there is reason to think a consumptive expectorates. It is an efficient disinfectant, but is poisonous.

Every one who has a persistent cough, whether he has consumption or not, should never spit carelessly on a floor or carpet of any room in which others are confined, and should exercise great care about the use of soiled handkerchiefs.

The care of those confined to their beds and rooms with the disease is all-important to the attendants and those who may afterwards occupy the room. All expectoration should be into cloths that can be burned, or into cuspidores that contain the above disinfectant. The air of the room should be constantly changing, and the clothing and bedding and eating utensils of the patient should be soaked in a disinfectant after use. Boiling water will answer the purpose. The diarrhoeal stools should be disinfected. Household pets are susceptible to the disease, and should not be allowed in the room, or, if one develops a cough, it should be immediately killed, for it may carry the disease to human beings.

The room in which a consumptive is confined should never have a carpet, and the floors, woodwork and all cracks and crevices should be washed thoroughly every week.

Consumptive mothers should not nurse their babes.

These rules may seem to some unnecessarily severe, but those who have observed the fearful mortality from this disease will understand the importance of taking advantage of preventive measures.

Consumption is to-day the most fatal disease known to mankind. Since the cure of the disease is not fully demonstrated and within the reach of all, and since its prevention is possible, every one should understand enough of the character of consumption to use intelligent precautions against its spread.

The State Board of Health asks the hearty co-operation of the physicians of the State in this important work—of restricting the spread of consumption. Local health officers may question whether they are justified in enforcing the restrictive measures recommended in other infectious diseases. Health officers and physicians generally may, however, do much good by informing the public of the

known infectious character of this disease and adopting the suggestions contained herein in their management of the disease.

Copies of this circular may be had of either member of the Board.

C. S. CAVERLY, M. D., Pres., Rutland,
J. H. HAMILTON, M. D., Sec., Richford,
O. W. SHERWIN, M. D., Woodstock.

CIRCULAR NO. 9—CHOLERA.

The situation in Vermont as regards a threatened outbreak of cholera calls for precautions rather than alarm.

The secret of success in dealing with the disease is in knowing something of its nature beforehand and acting intelligently at its first appearance.

Cholera is an infectious disease, and is transmissible.

The poison of the disease is in the discharges of the patient, and can be carried in various ways and by various articles to the well. The least soiling, by any of the discharges from the sick, of linen, clothes, articles of food, water, milk, knives, forks, spoons or dishes, of the hands or clothing of attendants, may be the means of conveying the disease to well persons. To produce the disease in well persons, the poison must gain access to the stomach. This may occur by eating, drinking or smoking in the house where the disease is; by taking into the mouth food or drink that has been in such a house; by eating or drinking anything that has been prepared or handled by an attendant, or one who has been in such a house; or by using eating utensils that have been handled by such an attendant, or been in such a house. Persons otherwise perfectly well, those who are temperate, and those whose organs of digestion are healthy, are much less liable to the disease.

PRECAUTIONS.

General.—Cholera is preventable. Cleanliness is the great safeguard. Every village and neighborhood should be watchful of its streets and public places. All filth should be removed from dwellings and their vicinity. Manufacturing establishments, slaughter-houses, cheese-factories and tenement houses should be watched and kept clean and wholesome. Drains, cess-pools and farm-yards should be cleaned often and disinfected. The closets, sewers and alleys in and above public buildings, hotels, schools and places of business should be watched continually. Sources of public water-supply should be carefully guarded.

Personal.—Be temperate in eating and drinking; avoid all excesses. Guard against anxiety of mind, overwork and all irregularities of life. Bathe frequently, eat well-cooked food and drink only boiled water or milk. In the presence of the disease eat or drink nothing that can in any way have been contaminated by the

sick. Food by which the disease germs are readily carried, such as fruit, vegetables, milk and water, should be only taken after thorough cooking or boiling. **BE ESPECIALLY CAREFUL OF MILK AND WATER.** Attendants and those necessarily in the house of the sick should not touch with unwashed hands food, drink, eating or drinking utensils, cigars, pipes or anything that will be put into the mouth.

For diarrhœa, or any derangement of the stomach or bowels, call a physician at once.

In an emergency, or until a physician can be secured, the following is a safe remedy:

Laudanum and spirits of camphor, each one oz., tincture of capsicum and water, each two oz., of which mixture an adult may take a teaspoonful in a wineglass of water once in three or four hours.

All clothing, bedding, eating utensils and other articles about the sick person should be placed in boiling water, or in one of the disinfectant solutions given below, or should be destroyed by fire. The sick person should be rigidly quarantined, with a competent nurse, in a large, well-ventilated room. No one should enter this room except the nurse and doctor, and no one should enter the house except from necessity.

DISINFECTANTS.

Corrosive Sublimate Solution—Dissolve one drachm of corrosive sublimate in one gallon of water.

Carbolic Acid Solution—Dissolve one part of carbolic acid crystals in twenty parts of hot soapsuds.

These solutions are suitable for bedding, clothes, towels, eating utensils, and for the discharges and vessels in which these are received.

Copperas Solution—Suspend a basket or perforated box containing sixty pounds of copperas in a barrel of water.

Water from the barrel may be freely used in drains, water-closets and wherever filth accumulates.

Copies of this circular may be obtained of either member of the State Board of Health.

CIRCULAR NO. 10—RULES AND REGULATIONS FOR THE BETTER PRESERVATION OF THE PUBLIC HEALTH, ETC.

The State Board of Health establishes and promulgates the following Rules and Regulations for the better preservation of the public health, and for protection against infectious and contagious diseases by the authority given in Section 6 of "An act to prevent the spreading of contagious diseases," etc., approved Nov. 23,

1886, and in Section 11 of "An act defining the duties and powers of State and local Boards of Health," etc., approved Nov. 22, 1892:

1. Any householder in whose dwelling there shall occur a case of scarlet fever, diphtheria, typhoid fever, typhus fever, measles, whooping cough, small pox or cholera, shall immediately notify the health officer.

2. When a physician knows or suspects that any person to whom he has been called is sick of, or has died of, a communicable disease dangerous to the public health, he shall immediately report the same to the health officer, who at once shall notify the teacher or principal of every school, academy or seminary which any member of this family attends, requesting said teachers or principals to forbid the attendance of all pupils residing in the family in which such disease exists.

3. Whenever the health officer is notified of a case of diphtheria, scarlet fever, small pox, cholera or typhus fever, he shall at once notify the librarian of each public library in his town, giving the name of and location of house occupied by the family.

4. It shall be the duty of the physician, and of all other attendants upon persons affected with such diseases, to avoid exposure to the public of any garments, or clothing about their persons, that may have been subjected to the risk of infection.

5. No person who has small pox, diphtheria, scarlet fever, measles or whooping cough, shall attend school or any place of public worship or amusement.

6. Books from a public or circulating library must not be allowed in any house where there is a case of small pox, diphtheria, scarlet fever, cholera or typhus fever.

7. Members of any household in which small pox, diphtheria, scarlet fever, cholera or typhus fever exists, shall abstain from attending places of public amusement, worship or education, and, as far as possible, from visiting other private houses.

8. No parent, guardian or master in whose house or family there shall have been a communicable disease dangerous to the public health, shall permit any child in said house or family to attend any public, private or Sunday school during or after the cessation of such disease, until the house shall have been thoroughly disinfected and cleansed, and the child shall have a proper certificate from the attending physician, countersigned by the health officer.

9. Plain and distinct notices must be placed upon the premises or house in which any person has small pox, diphtheria, scarlet fever, typhus fever, measles, whooping cough or cholera.

10. The clothing, bed-clothing and bedding of persons who have been sick with any communicable disease dangerous to the public health, and the rooms which they have occupied during such sickness, together with their furniture, shall be disinfected to the satisfaction of the health officer.

11. There shall not be a public or church funeral of any person who has died of Asiatic cholera, small pox, typhus fever, diphtheria, yellow fever or scarlet fever.

12. No meat, fish, birds, fowls, fruit, vegetables, milk, or anything for human food, not being then healthy, fresh, sound, wholesome, fit and safe for use, nor any animal or fish that died by disease, nor carcass of any calf, pig or lamb which at the time of its death was less than three weeks old, and no meat therefrom shall be offered or held for sale as food.

13. Whatever renders soil, air, food, water or other drink unwholesome, is declared to be a nuisance, and liable to breed or spread epidemic diseases.

14. Whatever building, erection or part or cellar thereof is overcrowded, or not provided with adequate means of ingress and egress, or is not sufficiently supported, ventilated, sewered, drained, cleansed or lighted, is declared to be a nuisance.

15. The collection of refuse matter in and around the immediate vicinity of any dwelling house, or place of business, such as swill, waste of meat, fish or shells, bones, decaying vegetables, excrement, or any kind of offal that may decompose and foster disease germs or give rise to unhealthy gases, shall be considered a nuisance, and must be removed or abated to the satisfaction of the health officer.

16. No putrid or decaying animal or vegetable matter shall be kept in any house, cellar or adjoining outbuilding or grounds, for more than twenty-four hours.

17. No slaughter-house shall be allowed within the limits of any incorporated village or city, or within fifty yards of any highway or inhabited house, without a permit signed by each member of the State Board of Health.

18. The preparation and keeping of all meat, fish, birds or other animal food, shall be in the manner best adapted to secure and continue their wholesomeness as food.

19. Every butcher, or other person, owning, leasing or occupying any place, room or building wherein cattle, sheep or swine have been or are killed or dressed, and every person being the owner, lessee or occupant of any room or stable wherein any animals are kept, or of any market, public or private, shall cause such place, room or building, stable or market, to be thoroughly cleansed and purified. And all offal, blood, fat, garbage, refuse and un-

wholesome or offensive matter shall be removed therefrom at least once in every twenty-four hours if used continuously, or if only used occasionally, within twenty-four hours after using.

20. No blood-pit, dung-pit, offal-pit or privy-well shall remain or be constructed within any slaughter-house.

21. No pigs or hogs shall be kept in the same enclosure with a slaughter-house, nor shall they be fed there or elsewhere, upon the offal of slaughtered animals.

22. No person or company shall erect or maintain any manufactory or place of business dangerous to life or detrimental to health, or where unwholesome, offensive or deleterious odors, gas, smoke, deposit or exhalations are generated, such as tanneries, establishments for boiling bones and dead animals, etc., etc., without the written permit of the State Board of Health; and all such establishments shall be kept clean and wholesome so as not to be offensive or prejudicial to public health; nor shall any offensive or deleterious or waste substance, refuse or injurious matter be allowed to accumulate upon the premises, or be thrown or allowed to run into any public waters, stream, watercourse, street, road or public place. And every person or company conducting such manufacture or business shall use all reasonable means to prevent the escape of smoke, gases or odors, and to protect the health and safety of all operatives employed therein.

23. The keeper, or keepers, of a livery or other stable shall keep his or their stable or stable-yard clean, and shall not permit a large amount of manure to accumulate at any one time.

24. No pig-pen shall be built or maintained within one hundred feet of any well or spring of water used for drinking purposes, or within 100 feet of any street or any inhabited house.

25. No privy-vault, cess-pool or reservoir in which a privy, water-closet, cess-pool, stable or sink is drained, unless it is water-tight, shall be constructed, dug, or permitted to remain within 200 feet of any well, spring or other source of water used for drinking or other culinary purposes, unless the surface of such vault, cess-pool or reservoir is at a lower level than the bottom of such well.

26. All privy-vaults, cess-pools or reservoirs shall be cleaned out at least twice a year, once in the spring not later than the 15th of May, and once in the fall not earlier than the 15th of October. From the 15th of May to the 15th of October, they shall be frequently and thoroughly disinfected.

27. All sewer drains that pass within fifty feet of any source of water used for drinking or culinary purposes shall be water-tight; in sandy soil the limit shall be eighty feet.

28. No sewer drain shall empty into any lake, pond or other source of water used for drinking purposes, or into any standing water.

29. It is also the duty of health officers after being notified of the outbreak of any epidemic or contagious disease to see that quarantine regulations are enforced and to have the oversight of cleansing and disinfecting all infected houses, etc.

MONTPELIER, August 3, 1893.

C. S. CAVERLY, PRES.,	}	State Board of Health.
J. H. HAMILTON, SEC.,		
O. W. SHERWIN,		

DISINFECTING SOLUTIONS.

Principally suggested by the Committee on Disinfectants of the American Public Health Association.

For the Disinfection of the Discharges from the Patient.

1. *Standard Solution No. 1.*—Dissolve chloride of lime or bleaching powder of the best quality (containing at least twenty-five per cent of available chlorine) in soft water in the proportion of four ounces to the gallon.

2. *Standard Solution No. 2.*—Dissolve corrosive sublimate and permanganate of potash in soft water in the proportion of two drachms of each salt to the gallon.

(NOTE.—1. This solution is highly poisonous. 2. It requires a contact of one hour to be efficient. 3. It destroys lead pipe. 4. It is without odor.)

3. *Standard Solution No. 3.*—To one part of Labarraque's solution (*liquor-sodæ chloratæ*.—U. S. P.) of hypochlorite of soda add five parts of soft water.

(NOTE.—Competent authority has pronounced this superior to all other disinfectants.)

For the Disinfection of Clothing, Towels, Bedding and other Textile Fabrics.

4. *Standard Solution No. 4.*—Dissolve corrosive sublimate in water in the proportion of four ounces to the gallon, and add one drachm of permanganate of potash to give color to the solution as a precaution against poisoning. One fluid ounce of this solution to the gallon of water is sufficiently strong. Articles should be left in it for two hours. One gallon of standard solution No. 1 may also be mixed with nine gallons of water, and used in the same way. No article should be allowed to leave the infected room until it has been either disinfected or boiled.

(NOTE.—Corrosive sublimate solutions should be kept in wooden or crockery vessels.)

For the Disinfection of Water-Closets, Urinals, Sinks and Cess-Pools.

5. *Carbolic Acid Solution.*—Mix one pint of carbolic acid with two and a half gallons of water.

Standard solution No. 4 diluted with three parts of water may also be used in the proportion of one gallon (of the solution) to every four (estimated) of the contents of the vault. Standard solution No 1 would require to be used gallon for gallon of the material to be disinfected. Dry chloride of lime may be sprinkled over the contents of a privy, or standard solution No. 2 may be made up by the barrel, and four or five gallons be applied daily during an epidemic.

For Disinfection of the Sick Room after it is Vacated.

Thorough ventilation for several days, and thorough washing of all surfaces, with one of the disinfecting solutions, say, one pint of standard solution No. 4 to four gallons of water, or a quarter of a pint of solution of hypochlorite of soda to a gallon of water. The walls and ceiling, if plastered, may be washed with this, and then whitewashed. All dust must be carefully washed (not brushed or swept) away from ledges, cracks, corners and crevices.

Sulphur Fumigation.

To use this effectively, three pounds of sulphur should be burned in a room ten feet square, which has previously been filled with moisture in the form of steam. Every opening in the room, flues, doors, windows, cracks and crevices must be closed, except the door by which the disinfectant is to escape. The sulphur is to be burned in an iron kettle or other vessel set in a tub containing a little water to guard against fire. A little alcohol or kerosene must be poured upon the sulphur, by means of which it may be ignited. Leave the room quickly, for the fumes are highly poisonous when breathed, and close the door tightly. Let the room remain closed twenty-four hours or more. Then air thoroughly for several days.

DISINFECTANTS.

1. *Fire*.—Perhaps the most effectual method of destroying infectious material is to burn it. This should always be done when practicable. Old clothing and bedding, if not too valuable, when soiled with infectious material had better be burned. The matter discharged from the throat and nose in case of diphtheria, that expectorated by consumptive patients, or by patients with whooping cough, should be received on rags or paper and immediately thrown into the fire.

2. *Steam Under Pressure*.—Under a pressure of twenty-five pounds, steam has a temperature of about 240 degrees Fahr., and will destroy the most resistant germs and spores. But except in hospitals it can rarely be used.

3. *Boiling*.—All known disease germs are destroyed by boiling for half an hour. Some spores, however, resist boiling even for several hours. Everything which can be washed, and is too valuable to be burned, should be put into boiling hot water as soon as soiled, and boiled for half an hour.

4. *Chloride of Lime*.—(Chlorinated lime, bleaching powder). The most resistant germs and spores of all kinds are destroyed by this, prepared as directed for *Standard Solution No. 1*. This solution is, however, quickly decomposed and rendered inert by contact with organic matter. Hence, disinfection may not be accomplished when the infectious material is imbedded in masses of organic matter.

5. *Liquor-Sodæ Chloratæ*.—(Labarraque's solution, chlorinated soda). This is of equal value with the chloride of lime as a disinfectant, and a much more pleasant preparation for bathing the bodies of patients, and hands, etc., of nurses and attendants. To the *Standard Solution No. 3*, add three or four times as much water for bathing. It is liable to become inert if kept too long.

6. *Mercuric Chloride*.—(Bichloride of mercury, corrosive sublimate). This is a deadly poison, formerly known by the name of "ratsbane" and "bug poison." It is relatively cheap, a pound only costing about sixty or seventy cents. The solutions should never be allowed to come in contact with lead, tin or copper. *Standard Solution No. 2* contains one part in 1,000, and will destroy all germs and spore-containing infectious material, provided that the micro organisms to be destroyed are fairly exposed to its action for two hours. *Standard Solution No. 4* is much stronger, being one part in thirty-two. But when one ounce of this solution is put into one gallon of water, it is strong enough for ordinary use, being one part in 4,000, which will kill all disease germs which are non-spore producing, such as small-pox, scarlet fever and diphtheria.

7. *Dry Heat*.—Articles that may be injured by moist heat or a disinfecting solution can be subjected to dry heat. But it requires for the destruction of spores a temperature of 284 degrees Fahr. for three hours, which will

injure woolen fabrics. In the absence of spores, however, articles may be considered to be disinfected if subjected to a dry heat at a temperature of 230 degrees Fahr. for two hours.

8. *Sulphur Dioxide*.—(Sulphurous acid gas, the fumes of burning sulphur,) Fumigation with burning sulphur is efficacious in disinfecting rooms, and clothing if freely exposed, after cases of small-pox, scarlet fever, diphtheria, measles and whooping cough.

9. *Carbolic Acid*.—To disinfect the excretions, the ordinary solution (one pint in two and a half gallons of water) may be used, by putting a pint into the vessel previous to an evacuation from the bowels. For clothing, hands, etc., one part of the solution to two and a half of water is of proper strength.

10. *Sulphate of Copper*.—(Blue vitriol). This salt, used largely in France, is reliable, not as good as the mercuric chloride for a disinfectant, but a better deodorant. One pound is to be dissolved in a gallon of water.

11. *Chloride of Zinc*.—For many years this has been a popular antiseptic and deodorant, but its real disinfectant power has been much overestimated. It may be relied upon for the destruction of pathogenic organisms, in the absence of spores, if used in solution of the strength of one ounce to a pint of water. It costs about ten cents an ounce.

12. *Bromine*.—This may be used in its pure state or in solution. It is antiseptic and deodorant, but scarcely germicidal.

13. *Iodine*.—This has been very popular as an antiseptic. It cannot be used in its pure state but must be dissolved in water by means of the iodide of potassium, or in alcohol as a tincture. The same may be said of iodine as of bromine.

14. *Copperas*.—(Sulphate of iron, green vitriol). This salt is very cheap and hence can be used freely. In solution of from one to three pounds in each gallon of water, it is a good antiseptic, and may be used to prevent infection, but cannot be relied upon for disinfection.

15. *Freshly Slaked Lime, Charcoal, etc.*, have been extensively used. They are good absorbents and perhaps deodorants, but have very little power, if any, as disinfectants.

CIRCULAR NO. 11—SCARLATINA, CALLED ALSO SCARLET FEVER, CANKER RASH, ETC.

1st. The period of incubation (time from exposure to infection till the first symptoms appear) is brief; from a few hours to six or seven days, rarely exceeding this period.

2d. The infection is developed in the eruption in the skin. As the eruption fades desquamation begins and lasts from eight to fourteen days. Desquamation is sure to result, however mild the case.

3d. A mild form of the disease in one child may provoke a severe or malignant type in another exposed to it, and when epidemic a majority of the cases are often of so mild a character as not to be recognized at first or often, till the infection has been given to others.

4th. The patient is infectious, slightly so, as soon as the eruption appears, but more so when desquamation begins, the danger

lasting for a period of six to eight weeks, or until the skin is free from scurf, particularly upon the palms of the hands and soles of the feet.

Clothing put away in closets, pillows, toys, cushions, books, etc., packed in trunks, have been known to preserve the contagion for months and years.

The above facts are the foundation upon which rests the measures recommended for the prevention and control of scarlatina.

When one member of a household is attacked with scarlatina, a unprotected persons should be excluded from that part of the house where the patient is confined, or from the house if this is not possible, and all persons entering the sick room should have no communication with the healthy without first changing all outside clothing and a thorough disinfection of hands, face and hair. *Isolation and quarantine should be rigidly enforced, whether the disease is of a mild or malignant type.*

During the fever, daily inunction all over the body with some simple ointment will greatly restrict the dissemination of contagious particles, and also relieve the fever and itching of the rash.

After three weeks, daily warm baths should be practiced until the end of six weeks, or until the completion of desquamation.

The rooms occupied by patients should contain no unnecessary furniture, carpets, rugs or window hangings.

All clothing, bedding, etc., should be kept scrupulously clean. The clothing of both patient and nurse, sheets, pillow-cases, towels, handkerchiefs and the like, after removal should be plunged into hot water and boiled for a half hour, when the virus they may have contained will be destroyed, and all danger from this source removed.

Dishes used in the sick room should be dipped in boiling soap suds as soon as used, and all food from the sick room should be burned.

When the patient is ready to leave the sick room he should be bathed and be dressed in clothing which has in no way been exposed to the contagion.

If the above precautions have been faithfully carried out during the entire sickness, the disinfection necessary will be that of room, bedding and furniture, and the clothing last worn by the patient and nurse.

Everything that cannot be thoroughly cleaned should be burned, and all articles that can be should be soaked in some disinfecting solution for one hour and then boiled for twenty minutes.

After washing floors and ceilings with a saturated solution of lime water, while wet use sulphur fumigation, burning three pounds of sulphur to 1,000 cubic feet of air space.

This question is often asked : Should fathers be allowed to act as nurses, or care for their children, sick with scarlatina, and then go to their places of business through the day ?

Answer : Yes; if the change of clothing and of careful and thorough disinfection of hands, face and hair is observed before going out.

For further instructions see circular No. 5.
Copies of this circular may be had of the Secretary of the State Board of Health.

STATE BOARD OF HEALTH,
SECRETARY'S OFFICE,
RICHFORD, VT., March 15, 1893.

To Local Boards of Health and Health Officers :

The State Board of Health would respectfully urge upon local boards and health officers the necessity of an early sanitary inspection of their several localities. This work should begin at the earliest moment when spring opens, and a vigorous system of sewage and sanitary inspection be maintained. Be watchful of streets and public places. See that all filth is removed from dwellings and their vicinity. Look well after manufacturing establishments, slaughter-houses, cheese-factories and tenement houses. Drains, cess-pools and farm-yards should be cleaned often and disinfected. The closets, sewers and alleys in and about public building, depots, hotels, schools and places of business should be watched continually. Privy pits should be replaced by water-closets or dry earth boxes.

Examine all sources of water supply, especially of *public* water supply, and if in doubt regarding the purity of any, report to secretary of the State board, who will give directions for its analysis.

Respectfully,

J. H. HAMILTON, Secretary.

DR. C. S. CAVERLY, President.

DR. O. W. SHERWIN.

REPORT OF HEALTH OFFICER TO SECRETARY STATE BOARD OF HEALTH.

..... has broken out in
the Town of
No. of Families infected,
No. of Cases,
No. of Deaths,
Precautions taken:
.....
.....

Remarks :
.....
.....
.....
.....

Health Officer.

EXTRACT FROM ACT 82, LAWS OF 1892.

SEC. 7. The health officer shall, upon receiving notice of any case of infectious or contagious disease, dangerous to the public health, investigate far enough to determine, if possible, the source or cause of the disease. He shall institute means of prevention or restriction in the name of the local board, and shall immediately report all the facts to the secretary of the State Board of Health. Whenever a communicable disease is prevailing to any considerable extent, more than usual, or becomes epidemic, he shall make to the secretary of the State Board of Health weekly reports concerning that disease during its continuance. And once each year, during the month of August, he shall make to the secretary of the State Board of Health a general report of the sanitary condition and public health of his town.

For each report to the secretary of the State Board of Health of contagious disease he shall be paid fifteen cents, and for each annual report he shall be paid one dollar ; each to be paid by the treasurer of the town or city.

SEC. 5. It shall be the duty of every local Board of Health to report to the secretary of the State Board of Health every case of small-pox, varioloid, Asiatic cholera, typhus fever or yellow fever occurring within its jurisdiction ; to provide, whenever it is deemed necessary by the State Board of Health, a suitable supply of vaccine virus of a quality and from a source approved by said State Board of Health ; and during the existence of an actual outbreak of small-pox in any town or city, the local Board of Health shall at all times provide thorough and safe vaccination for all persons within its jurisdiction who may need the same.

REPORT OF PHYSICIAN TO HEALTH OFFICER.

..... has broken out in
the family of
on street.
No. of persons in family,
No. of cases,
No. of deaths,

Origin of the disease :

, M. D.

EXTRACT FROM ACT 82 OF THE LAWS OF 1892.

SEC. 6. Any householder in whose dwelling there shall occur a case of infectious or contagious disease, dangerous to the public health, shall immediately give notice to the health officer. Any physician who knows or suspects that any person to whom he has been called is sick, or has died, of any communicable disease, dangerous to the public health, shall at once report to the health officer the place where such case exists, the name, degree of virulence and cause or source of the disease, as far as these things are attainable.

Any householder or physician failing to give timely notice to the health officer of the existence of such disease shall be subject to a fine of not more than ten dollars for every such offense.

Diseases which should be reported to health officers :

- | | |
|----------------------------|-----------------------|
| Cerebro-spinal meningitis, | Membraneous croup, |
| Continued fever, | Scarlet fever, |
| Cholera, | Small-pox, |
| Diphtheria. | Varioloid, |
| Erysipelas, | Typho-malarial fever, |
| Measles, | Typhus fever, |
| Typhoid fever, | Whooping cough. |

STATE BOARD OF HEALTH,
 SECRETARY'S OFFICE,
 RICHFORD, VT., August 15, 1893. }

According to Section 7 of Act Number 92 of the Acts of 1892, it is the duty of each health officer to "make to the secretary of the State Board of Health a general report of the sanitary condition and public health of his town." This "once a year during the month of August."

Will you bear this in mind and forward your report by September 1st, as the secretary's report is issued under that date.

Respectfully yours,

J. H. HAMILTON, Secretary.

INTER-STATE NOTIFICATION.

In compliance with resolutions adopted by National Conference of State and Provincial Boards of Health, at Toronto, in 1886, and Washington, in 1887, the following reports of dangerous communicable diseases have been received from the secretaries of the various State and Provincial Boards of Health :

SMALL-POX.

Connecticut, 20; Iowa, 1; Maine, 2; Michigan, 6; Minnesota, 5; New York, 39; Ohio, 60; Pennsylvania, 90; Province of Quebec, 1; while Vermont has reported 2. Total, 226.

TYPHUS FEVER.

Connecticut, 1; Province of Quebec, 1.

YELLOW FEVER.

Florida, 2.

Annual Reports of Health Officers.

—o—

ADDISON COUNTY.

ADDISON, Vt., August 30, 1893.

Secretary of State Board of Health.

Sir—There is no resident physician in this town. The practice is done by the physicians in all of the surrounding towns. I have been unable to find a single case of contagious disease for the year ending September 1st, 1893.

The sanitary condition of the town is good.

(Signed,)

ELLIOTT W. SHIPMAN,

Health Officer.

BRIDPORT, Vt., August 30, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health, Richford, Vt.

Dear Doctor—Not having received any blanks for my annual report, I therefore send you the following, hoping that it will be satisfactory:

The sanitary condition of the town of Bridport is as good, or better, than it has been during the last twenty years. There is no epidemic or contagious disease prevailing that I know of, and, therefore, the public health is excellent. There is but very little sickness at present, only such ailments and diseases as are caused by atmospheric changes, hereditary and acquired causes. The supply of water for culinary and drinking purposes is obtained mostly from cisterns, which, if properly constructed and cared for, makes as pure water as can be obtained and cuts off a large source of the causes of certain diseases. Typhoid fever is almost wholly unknown here, unless contracted elsewhere, and there are but few cases of diphtheria.

Our fevers are mostly of malarial origin.

There are only two slaughter-houses in town, and they are situated on cross-roads, about two miles from the village. Both, I think, are within fifty yards of the highway, but, being so far from the village, and not upon the most frequented roads, I think that the State Board of Health will readily grant a permit allowing them to remain in their present location.

The last clause of Article 24, in Circular 10, relating to pig pens, will be very difficult to enforce in this town, and I should not think it advisable to attempt it. A large proportion of the number in town are within one hundred feet of dwelling houses, and I think that it is the same in all farming towns in the State.

If you wish to have enforced Articles 17, 21 and 24, in Circular No. 10, I must have special orders from the State Board of Health.

You will please find enclosed report for quarter ending August 31, 1893.

Yours respectfully,

E. G. BLAISDELL,
Health Officer.

BRISTOL, VT., August 24, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Doctor—In compliance with the State law and your request, I have to report that the sanitary conditions of this town are very good—far better than they have ever been before at this time of year, which is evidenced by the fact that we have within our borders no contagious or infectious diseases.

Yours truly,

H. A. BOGUE,
Health Officer.

CORNWALL, VT., August 31, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—In compliance with Section 7 of "An act defining the duties and powers of State and local boards and health officers," etc., I would respectfully submit the following report:

The sanitary condition of the town of Cornwall is good, only one complaint having been made to the Board of Health, which was immediately investigated and cause removed.

The general health of the town is excellent, and, with the exception of a few cases of whooping cough in one school district, there is but little sickness. All the contagious diseases that have appeared in this town this year are whooping cough and scarlet fever, the latter being confined to two families, and, had the attending physician reported the case to the health officer, no others would have occurred. In the last case, as soon as notified, the health officer instituted quarantine measures, and the disease did not appear after.

Respectfully,

E. O. PORTER,
Health Officer.

GRANVILLE, VT., Sept. 12, 1893.

Secretary State Board of Health.

Sir—Three families had the whooping cough; total, eight children. There were a few cases of measles; all did well, and neither disease spread. One child died the other day from cutting teeth and the derangement of the bowels that follows such cases. No doctor was called to see it.

E. HUBBARD,

Health Officer.

LINCOLN, VT., August 24, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Sir—There have been four cases of typhoid fever in this town, the first case coming, as usual, from Burlington. The other three contracted the disease by eating caraway that had been polluted with the rinsings of the slop-pail. Nearly all the children and many adults have had whooping cough and mumps. Nearly one-half of those having mumps have had a metastasis of the disease or some other unpleasant sequelæ. With these exceptions the health of the town has been more than usually good.

Yours truly,

J. S. DODGE,

Health Officer.

MIDDLEBURY, VT., August 20, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Dear Doctor—As I find no special blanks on which to make the annual report, will submit the following, as copied from my books, from January 1, 1893:

Scarlatina, 20 cases, with 1 death, convulsions; measles, 2 cases, recovery; diphtheria, 2 cases, one being ill at the present writing, complete recovery of first case; typhoid fever, 2 cases, recovery.

Number of deaths to August 15, 1893:

Pneumonia, 3; heart failure, 3; old age, 2; phthisis, 2; apoplexy, 2; la grippe, 2; throat disease, 1; winter cholera, 1; pertussis, strangulation, 1; congestion of the brain, 1; suicide, 1; scarlatina, 1—total, 20.

At this date I know of but two cases of fever, and those of a remittent type; also one case of diphtheritic throat. The general health of the town and village is far better than for the last three years, or since the first appearance of la grippe. The sanitary condition of the village is slowly improving, and is now fairly good, considering we have no regular system of drainage.

Respectfully submitted,

M. D. SMITH, M. D.,

Health Officer.

MONKTON, VT., August 9, 1893.

DR. HAMILTON.

Sir—In compliance with the statute, I proceed to make to you an annual report. The health of the people of Monkton is excellent and sanitary conditions good. There has been no prevailing epidemic of any kind during the year last past. I think that there has been but three deaths in town since I was appointed health officer, December 23, 1892—one by accident, one by paralysis and one by malignant disease of the stomach (probably); all old people, except the one killed by accident.

I have seen one case of proseola. A case or two of whooping cough was imported into town, after being long convalescent. I was notified by Dr. Collins, August 4th, that he had two cases of scarlatina in town. I immediately visited the cases and quarantined them and made sanitary inspection. They are doing well, and I hear of no further cases. The cases referred to are quite mild. From whence the contagion arose is a secret. I presume we shall be able to interrupt the further spread of the disease.

Yours truly,

P. L. NIMBLETT,

Health Officer.

ORWELL, VT., August 15, 1893.

J. H. HAMILTON, M. D.

Dear Sir—Have not had a case of typhoid fever for a year. Only three cases of scarlet fever, in one family, contracted from New York State. No spread, and no other contagious disease in past year. Have not seen a case of diphtheria since I came here, nine years ago. Whiting or Leicester selectmen have reported no contagious diseases, consequently I think the sanitary condition of these three towns is in a favorable condition.

Very truly,

W. H. VINCENT,

Health Officer.

RIPTON, VT., October 5, 1893.

DR. HAMILTON, Secretary State Board of Health.

Dear Sir—I have not responded to your call for a report from me as health officer in this town. I do not know how to make a report. I can only say that the sanitary condition is very good. We have a population of about five hundred inhabitants. During the past year we had one death to each one hundred, or, to state it plain, there have been five deaths during the year; all old people. We have not experienced any epidemics. I believe the people try with commendable zeal to keep up a very good sanitary condition.

I have not had sufficient to do in the line of duty as health officer to keep up a good condition of circulation of the blood, providing I had nothing else to do. Now, I do not know whether you want me to report the cause of death in the cases of those who have died during the year—three cases. Two were treated by other physicians. If this is not satisfactory, please tell me what you want me to say, and if it is anything I can say truthfully, I will say it.

Yours fraternally,

H. C. POWERS, M. D.,
Health Officer.

SALISBURY, VT., August 24, 1893.

State Board of Health, J. H. HAMILTON, Secretary.

Dear Sir—My report, for want of material, will be very brief. Since my appointment as health officer this town has been comparatively free from contagious or infectious disease. At present we have nothing of the kind. During the term of my service there have been nine cases of scarlet fever, in three families. They were all promptly quarantined, and it was thus soon stamped out. There have been two cases of measles.

The sanitary condition and public health of the town at date is good, for which the people are thankful, if the doctors are not.

Respectfully yours,

O. M. BUMP,
Health Officer.

SHOREHAM, VT., August 23, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—Since my appointment as health officer, December 10, 1892, no deaths have occurred in my jurisdiction from the zymotic diseases prevalent in this locality. Two cases of scarlet fever have been reported, both of which were promptly and effectively quarantined. Our town's vital statistics show fourteen deaths since date mentioned—three from pneumonia, one from erysipelas, two from apoplexy, two from cancer, two from consumption, one from marasmus, one from rupture of fallopian tube, one from senility, one resulting from strangulated hernia (after operation).

Respectfully,

WM. N. PLATT, M. D.,
Health Officer.

STARKSBORO, VT., August 31, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—I have found the sanitary condition of the town of Starksboro very good. Have found but one cause for complaint, and that by reason of decaying animal matter removed from a slaughter-house to a field, becoming a nuisance. This was easily remedied.

During the year past we have had no epidemic of disease. The general health of the public has been unusually good.

We have had only one case of contagious disease; that a case of syphilis, coming from an adjoining town; patient died; all bedding and clothing used about the patient were burned and house thoroughly disinfected.

Has been but little sickness during the summer.

Yours respectfully,

H. WADE, M. D.,

Health Officer.

VERGENNES, VT., Sept. 1, 1893.

Secretary of the State Board of Health.

Sir—I herewith submit my annual report as health officer:

	NO. OF CASES.	DEATHS.
Cere. spinal meningitis.....	6	3
Cholera infantum.....	14	4
Diphtheria.....	7	2
Dysentery.....	8	2
Erysipelas.....	6	1
Measles.....	5	..
Phthisis.....	6	2
Pneumonia.....	5	2
Puerperal fever.....	1	..
Typho-malarial fever.....	9	3
Typhoid fever.....	4	2

The sanitary condition of the town is excellent. We have improved the system of sewerage very much, closing all open drains, and compelling the owners of property to repair all defective drains as soon as possible after such defective drain came to our notice.

This report is respectfully submitted to the Hon. Secretary of the State Board of Health with the understanding that it is only approximate, owing to the fact that the physicians have not reported to the health officer as faithfully as they should have done. But we feel sure that the coming year will find a more satisfactory state of affairs in this respect.

(Signed,)

ELLIOTT W. SHIPMAN,

Health Officer.

MIDDLEBURY, VT., August 30, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health.

Sir—The town of Weybridge has had no epidemic of contagious diseases this year. Three cases of scarlet fever (as reported last March) are all that have come to my knowledge.

The sanitary condition of the town is good.

B. F. SUTTON, M. D.,

Health Officer.

BENNINGTON COUNTY.

ARLINGTON, VT., August 31, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Sir—My annual report as health officer for the towns of Arlington, Sandgate and Sunderland will be brief. Geographically, the town of Arlington is situated in the western part of the county of Bennington, State of Vermont. The town of Sandgate lies directly north and the town of Sunderland east of Arlington, and what I shall say of the sanitary condition will apply alike to the towns of Arlington, Sandgate and Sunderland. Up to the present time there has been no prevailing disease in these towns, and the public health has been exceptionally good. I have, as health officer, received no reports from physicians doing business in these towns of any contagious diseases.

During the month of April I had in my own practice five cases of scarlet fever. These were located in the extreme western part of the town of Arlington. The origin of the cases was exposure from parties residing in New York, who brought a child ill with the disease to this town. The first above-mentioned cases contracted the disease from this child. All recovered. The families were quarantined, and after recovery the premises were thoroughly fumigated with proper antiseptics. No spread of the disease. The water supply is largely from springs; very few wells in use. The natural drainage of these towns is good. The grade of the streets permits storm water to flow off quickly, and very few basins or low, wet and marshy places exist. At the present writing I have in my own practice one case of typhoid fever. This case is a man from another town, who came here to visit friends, and was unable to return to his home. This case did not originate in this town.

In conclusion I will say that I think the sanitary condition of these towns is above the average of the towns in Vermont.

Respectfully submitted,

W. S. PHILLIPS, M. D.,

Health Officer.

BENNINGTON, VT., August 31, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—I have the honor to report, under Section 7 of Act No. 82 of the Laws of 1892, that the sanitary condition and public health of the three municipalities, viz., village of Bennington, town of Bennington and village of North Bennington, is very satisfactory as a whole. My commission, dating only from July 25, 1893, is of so recent event that I have official knowledge of but a little more than one month, but personally I have reason to think we are more free from contagious and infectious diseases than at any one time prior to July 25, during the year ending to-day. I find recorded fourteen cases of diphtheria and one of scarlet fever between the dates of July 1, 1893 (when the record begins), and July 25, 1893, all in the village of Bennington. There were two cases of diphtheria reported from the town in school district No. 11; no date. Since July 25, in the village of Bennington, there have been reported to August 2, 1893, eight cases of diphtheria, in three families—no deaths—and since that date there have been no contagious diseases of any kind in the corporation.

The village of North Bennington reports no contagious diseases during my term of office. Last fall diphtheria raged to some extent, but was finally stopped. The town of Bennington has had three families in which diphtheria existed since July 25, 1893, in two of which two other families were likewise quarantined; reported August 9, 20 and 28. One death has occurred, a child eighteen months old. We hope to stop the disease and confine it to the family of Frank Rice, where it now exists.

When I received the appointment of health officer I at once called together the local Board of Health and organized, with the following: President, Emmett B. Daley, M. D.; vice-president, Robert W. Bennett, M. D.; H. L. Stillson, health officer, *ex officio* secretary. The *ex officio* members of the board are H. T. Cushman, 2d, president of the village, and Colonel Edward L. Bates, village attorney. The secretary procured printed stationery, and the following blank is used to give notice to those property owners where we find nuisances existing:

BENNINGTON, VT.,..... 189..

M.

You are hereby notified that a complaint has been made to the Bennington Board of Health that a nuisance exists on your premises, No. street. We have investigated the same and find:

And you are notified to remove or abate the same within TWENTY-FOUR HOURS from date, subject to the statute penalty provided for

non-compliance with this notice. See Sections 37 to 43, inclusive, of Village Charter ; Laws of Vermont, No. 93 of 1886, No. 82 of 1892, etc.

In the case of ground closets the board recommends the use of dry earth and lime as an Absorbent, and sulphate of iron, dissolved and sprinkled in the vault, as a disinfectant.

When a privy is cleaned, a manure heap or other refuse removed, dry earth or gravel should be covered over the surface thus laid bare, and limed.

By order of the board.

.....

Health Officer and Secretary.

The town and village of North Bennington use a similar blank form of notice.

The board has heard complaints, and has ordered eighty-four nuisances abated between July 25 and date, in every instance the order being obeyed. The village is pretty well cleaned up, because these cases represent only a part of the removal of rubbish and filth. We have been anticipated in our efforts, and the people generally co-operate with the board's efforts to improve the sanitary condition.

Earlier there was a disposition, so I am told, to disregard the statute relative to reports to the health officer by the physicians of the town. I have found them ready and willing to do so in every instance.

The town Board of Health was organized by the health officer : R. M. Houghton, first selectman, president ; F. M. Crawford, second selectman, vice-president ; H. L. Stillson, health officer, secretary, *ex officio*. The other selectman, Hon. Alfred Robinson, is deceased, so that the town health board is organized as stated. This board is doing efficient service, and wishes to have everything done strictly according to law. The village of North Bennington has at present no Board of Health. By Act No. 260 of the Laws of 1892 it has the power to appoint a board analogous to the one for the village of Bennington. There is a movement on foot to take advantage of the statute, and so create a local body to act with the health officer.

Anticipating the opening of the graded schools of the villages of Bennington and North Bennington and the town schools, S. C. Lyons, chairman of the town board, the Boards of Health, unitedly, through the secretary, issued the following certificate to the medical faculty practicing in the corporations named :

BOARD OF HEALTH CERTIFICATE.

..... BENNINGTON, VT.,, 189..

This certifies that
lately ill with , a communicable
disease, and by the laws of Vermont prohibited from attending

any public or private school, Sunday school, place of worship or amusement, and from taking or returning books from any circulating or public library, having complied with rules 3, 5, 7 and 8 of Circular Number 10 of the State Board of Health, is hereby restored to the full enjoyment of the privileges restricted by the quarantine.

Not valid unless countersigned by Health Officer. } M. D.,
Attending Physician.

Countersigned by

....., Health Officer.

Each teacher, librarian, chairman of school boards, pastor of church, Sunday school superintendent and manager of public hall has been duly notified and a copy of Circular No. 10 placed in their hands, together with a sample blank certificate, with orders to honor none not written on these blanks and duly countersigned.

The opening of town school No. 16 has been ordered postponed until the danger from diphtheria in that locality is past.

Very respectfully submitted,

H. L. STILLSON,

Health Officer.

GLASTENBURY, VT., August 26, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—There have been no cases of contagious or infectious diseases in this town for the past year.

G. E. HARRINGTON,

Health Officer.

LANDGROVE, VT., August 27, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—Since my appointment as health officer of this town there has been no infectious diseases, unless consumption can be so termed. One case of that.

There are not, neither have there been, any public nuisances, unless a mill pond at Clarksville, that a contracting party obliges another to run empty and keep so till after haying, can be called so.

The people are not, as a whole, educated up to the "germ theory," and consequently are rather careless as to privies and wells and rotting manure, etc.

But as this is a mountain town, where there is plenty of wind, they do not appreciably suffer in consequence.

Respectfully yours,

C. C. COOK,

Health Officer.

MANCHESTER, VT., August 21, 1893.

Secretary State Board of Health.

Sir—This report embraces only a portion of the year, from May. June 5, one case diphtheria (Dr. Trull); June 13, two cases scarlet fever (Dr. Wyman); June 14, two cases scarlet fever (Dr. Clemons).

The above are the only cases reported since my appointment. Complaints made have been two:

1st. In regard to a stagnant pond, which was attended to at once and satisfactorily settled.

2d. A complaint, entered by Dr. Wyman, regarding a neighbor's sewer contaminating his well. After considerable labor, this, I believe, has been favorably settled.

As to the sanitary condition of the town, would say it is very good, and so far as I know, there are no cases of sickness resulting from any unhealthy place in the town.

GEO. SMITH,

Health Officer.

PERU, VT., August 30, 1893.

J. H. HAMILTON, M. D.

Sir—Scarlet fever has broken out in the family of Mr. Green. Number of persons in family, 5; number of cases, 1; no deaths. The origin of the disease is unknown. The sanitary condition of the town is fair and public health good.

B. F. MILLINGTON, M. D.,

Health Officer.

POWNAL, VT., August 30, 1893.

Secretary State Board of Health.

Sir—The physician, J. H. Niles, refused to report cases, and I employed Dr. Lyman Rogers of Bennington, Dr. E. Potter of Pownal and Dr. Lloyd of Williamstown, Mass., to make examination, and they found all cases to be diphtheria in malignant form. I quarantined the houses, and was obliged to place a watchman at several places to keep the family from spreading the disease, as the physician, Dr. Niles, claimed it was not a contagious disease. I then made complaint to the State's attorney. Niles has been arrested. His trial is to be at Pownal October 2. There are no cases at present.

D. T. BATES,

Health Officer.

READSBORO, VT., August 28, 1893.

Secretary State Board of Health.

Sir—There have been no cases of contagious disease reported to the health officer during the past year. The sanitary condition of the town is as good as could be expected. Members of the Board of Health have, from time to time, inspected the sanitary condition of the village, and where nuisances have existed they have been abated by the owners of the property soon as practicable after receiving notice. The village is in great need of a better system of sewerage, which it will undoubtedly have at no very distant day.

Respectfully submitted,

HENRY S. WARD, M. D.,
Health Officer.

SOUTH SHAFTSBURY, VT., Jan. 18, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Dear Doctor—There have been in the town of Shaftsbury during the year of 1892 twenty-one cases of diphtheria, two of which died. Three cases of scarlet fever; all recovered.

Yours,

J. B. WOODHULL, M. D.

SOUTH SHAFTSBURY, VT., August 29, 1893.

J. H. HAMILTON, Secretary, etc.

Sir—I herein make a statement of the health of the town of Shaftsbury. There have been two cases of diphtheria in town, both in the same house, and one death. The house has been thoroughly cleaned, and is now considered safe. The general health of the town is good, not many sick with any disease. I have not heard of any fever of any kind.

There was a good deal of fault found with the manner in which I put the notice on the house where they had the diphtheria. They claimed that my notice was not enough. I simply put up a yellow card, marked "Diphtheria in this house;" and there was one of the family who went away from there to board as soon as it was known that they had the disease, who waited on them by getting things for them, but did not go into the house. If you have any better notices than the above, I wish you would send me some, or if I did not do what was right, please inform me.

Yours, etc.,

F. H. MATTISON,
Health Officer.

STAMFORD, VT., August 30, 1893.

J. H. HAMILTON, Secretary, Richford, Vt.

Dear Sir—During the year there have been reported three cases of diphtheria in mild form, each case in a different family and locality; origin of disease not known; one case of measles.

The public health of the town has been good; sanitary condition fair.

I think it would be advisable to have an examination of all well water.

Very truly yours,

C. D. HOUGHTON,

Health Officer.

WINHALL, VT., August 25, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health, Richford, Vt.

Sir—The town is in a very good sanitary condition, having had during the year but four cases of scarlatina, with no deaths from contagious diseases. This spring I made an early inspection, ordering some barn yards and privy pits cleaned. The water supply is good. The public have co-operated with the local board. The number of births I cannot state, as they are recorded at the town clerk's office. I look upon the Winhall river as about the only thing that menaces the public health, due to the amount of sawdust and flood wood from the three mills on the said river. This sawdust should be blown in a heap, which in the end would be a source of profit to its owners, as it would about all be bought by the public. The remainder could be used to great advantage on our public highways, as it makes good roads.

Number of complaints made to health officer, 3; reports of contagious diseases, 4.

Yours truly,

T. A. FLANDREAU,

Health Officer.

WEST RUPERT, VT., August 29, 1893.

J. H. HAMILTON, Secretary State Board of Health of Vermont.

Dear Sir—The sanitary condition of our town, as far as I have investigated, is good. There is a general time of health—no epidemic diseases since this year came in. About three weeks ago, the forepart of this month, there were five cases of dysentery in a mild form, showing no signs of an epidemic form. I never knew of so little sickness in town as there has been for six months past.

Very truly yours,

J. M. MOORE,

Health Officer.

WOODFORD, VT., August 24, 1893.

J. H. HAMILTON, Secretary, etc.

Dear Sir—Your card of the 15th instant was received in due time.

Replying thereto, I will say that there have been no contagious diseases in the town of Woodford during the past year, and the sanitary condition has been good, and is at the present time.

Very respectfully,

AMOS ALDRICH,

Health Officer.

CALEDONIA COUNTY.

MCINDOES FALLS, VT., August 26, 1893.

J. H. HAMILTON, M. D.

Dear Sir—In my report for the town of Barnet I would say we had three cases of typhoid fever during the months of April and May, all in the family of Mrs. George Dunbar. The first case was contracted in Lyme, N. H. No deaths. I have also to report nine cases of measles—two in the family of Mrs. B. F. Pearl, four in the family of Fred. Blackburn, one in the family of John Martin, two in the family of Peter McDonald; all recovered.

I consider the sanitary condition and general health of the town good.

Yours truly,

J. M. GIBSON.

Health Officer.

EAST BURKE, VT., August 28, 1893.

Secretary State Board of Health.

Sir—This is to certify that I have made a quite thorough inspection of the sanitary condition and public health of the towns of Burke and East Haven, and find them in an improved condition since the acts of 1892 came in force. There has not been any form of an epidemic in either of the towns, and but a few cases of contagion, and, as far as I am able to determine, the sanitary condition is very good at present.

I don't know as this is just what is required by the secretary for a report; if not please advise me, and I will try my best to fulfill it.

Yours respectfully,

H. J. LANE,

Health Officer.

DANVILLE, VT., Sept. 7, 1893.

Secretary of the State Board of Health.

Sir—I have the honor to report that the health of the town of Danville for the year ending August 31, 1893, has been, on the whole, of an encouraging character. No pestilence or epidemic has invaded our borders or devastated our midst. There have been no deaths from diseases marked, one death following scarlatina, due to acute desquamative nephritis. Only three cases of typhoid fever, one a severe case, but all recovered. La grippe the least for three years. Very few deaths. To-day there are very few cases of sickness in town. I am sorry not to make a lengthier or more detailed account, but I have little to report.

I beg your pardon for being so dilatory, but it got to be September 1st before I hardly realized it, and will endeavor to be on hand the coming year.

	CASES.	DEATHS.
Erysipelas	3	..
Measles.....	2	..
Pneumonia	6	..
Scarlatina	12	1
Typhoid fever.....	3	..

Respectfully and fraternally yours,

N. C. B. HAVLAND,

Health Officer.

GROTON, VT., August 30, 1893.

Secretary Board of Health.

Sir—This town and vicinity have been unusually healthy this year. I have no epidemic or contagious diseases to report of any kind. Everybody is contented and happy. Very little sickness to attend to.

Yours truly,

S. N. EASTMAN,

Health Officer.

P. S.—If this report is not satisfactory, please let me know, and let me know what is wanted.

HARDWICK, VT., August 29, 1893.

Secretary State Board of Health.

Sir—I send the following report of the sanitary condition and public health of the town of Hardwick, Vt., for the past year:

Of infectious and contagious diseases we have had two cases of diphtheria, six cases of scarlet fever and six cases of typhoid fever.

The sanitary condition of the town is very good. Many houses are thoroughly plumbed and drained to the river, while in others the drainage is into cesspools, that are cleaned out once a year, or privy vaults are used, dried earth being used in these vaults to absorb and reduce the excrement to an inodorous form. The water supply is from springs throughout the town, and in this village it is from a reservoir made up of large springs. The sanitary condition of the village school buildings is very bad as regards drainage and water supply, but a new house is in process of construction that will be thoroughly plumbed and drained to the river and supplied with pure water.

S. E. DARLING, M. D.,
Health Officer.

LYNDONVILLE, VT., August 31, 1898.

DR. J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—I am pleased to report for the year a generally healthful condition of the people of Lyndon. No contagious or infectious diseases have prevailed to any general extent. There have been a few cases of typhoid fever, measles, scarlatina and diphtheria, the last confined to Lyndonville. The sanitary condition of the town, I think, is fair. The people are more awake to the necessity of care in respect to their sanitary surroundings than of old.

Lyndonville has suffered but little from serious forms of disease, with the exception of diphtheria. The sanitary condition is vastly better than it was years ago. The streets are, with one exception, pretty well supplied with sewers. Considerable work in that line has been done this summer, but there is need of more being done. The people are alive to the needs of the village, and the work will be pushed along to completion, I think. There have been eleven cases of diphtheria, with four deaths, in this village. Without question the cause was bad sewerage, the disease being confined to East street and North Main street, where there have never been any sewers. (North Main street has its sewer just completed.) At the present time there is but one case of diphtheria, taken yesterday, the first in seventeen days. This case is evidently from contagion and poor sanitary surroundings, being on East street, and in the same house where there were three cases and one death about three weeks ago. I am taking all the care possible to isolate all cases, but it is impossible to do it satisfactorily in many cases, as there is not room in the small tenements. All the cases so far have occurred among the foreign population.

Respectfully submitted,

J. W. COPELAND,
Health Officer.

PEACHAM, VT., August 30, 1893.

Secretary State Board of Health.

Sir—We have only had in the town of Peacham three cases of measles; one family infected; no deaths. Kept them at home. These three cases of measles are the only cases of contagious disease we have had in town this season, and the sanitary condition is good in this town.

W. A. THOMAS, M. D.,

Health Officer.

RYEGATE, VT., August 30, 1893.

Secretary State Board of Health.

Sir—The town of Ryegate during the past year has been in a very good sanitary condition. The slaughter houses, drainage, etc., have all been kept in good condition.

There has been no epidemic of any contagious or infectious disease in town during the year; no case of diphtheria, measles or scarlet fever, and only one case of typhoid fever, the source of which could not be traced.

Therefore, I consider the town of Ryegate in a very good sanitary condition.

Yours very respectfully,

G. W. DARLING, M. D.,

Health Officer.

ST. JOHNSBURY, VT., Sept. 6, 1893.

State Board of Health, J. H. HAMILTON, Secretary.

Sirs—On the 15th day of December, 1892, I made you a preliminary report of the sanitary condition of the town of St. Johnsbury and all facts then ascertainable of the cause of the endemic of typhoid fever then prevailing. I also said that I would make you a supplementary report in a few days, but no time intervened that any satisfactory conclusions could be arrived at until the present time. The severity of the endemic continued to increase during the winter and spring, and my investigations as to the cause necessarily take me back to the month of August, 1892, and my report includes from September, 1892, to September, 1893. It became more and more apparent that our village water supply had become contaminated, although samples of water sent to the Navy Department, Washington, D. C., showed no indications of contamination; and here I wish to state that I have little confidence in the examination of water, though contaminated, taken from the stream, from under the ice, in mid-winter. The examination should often be

made under varying circumstances, and the examiner should be informed particularly of all the varying circumstances connected therewith. We have for years had typhoid fever prevailing to a certain extent, but rather more than sporadic about our town and village. Never before, by good fortune or otherwise, did our water supply become contaminated, but in August, 1892, two cases occurred, the sewage from which found its way into the headwaters of our water system. In this way it was disseminated all over our village, and typhoid developed rapidly.

Two of the members of the State Board of Health kindly came in July to help us investigate the cause, and they fully concurred with the health officer of St. Johnsbury, that the above was the cause of the endemic. Unfortunately we have two water supplies, as stated in my previous report, which were antagonistic to each other, and we were long delayed in getting a large proportion to adopt the suggestions made by the State Board of Health with reference to the etiology of our typhoid endemic. Having adopted the facts in reference to causation and practicing upon the suggestions made, namely, using other water and boiling the polluted water, the endemic gradually subsided from nineteen cases in June to three in July and two in August; in September, thus far, none. In all, from September 1, 1892, to September 1, 1893, there have been in the town of St. Johnsbury two hundred and thirty-one cases of typhoid fever, out of which there have been forty deaths. One hundred and eighty of these cases were under thirty-one years of age; two were over seventy. For these statistics I am indebted to the medical profession in St. Johnsbury, each of whom I have personally interviewed several times, and who have ever and always kindly received me and co-operated with me in every possible way in stamping out this dreadful disease. We found on the opening of early spring that our town was in a very bad sanitary condition, otherwise than water supply. Our sewerage system and plumbing were very imperfect. The board at once appointed an inspector, whose entire business has been to go from house to house and inspect the sanitary condition. The board at once proceeded to lay a more perfect and systematic sewerage system. Our people were all requested to enter the public sewers, and a large number have done so. We also have cleared out our earth and surface closets and disinfected them. Our academy and all our public schools have re-sewered and re-plumbed their buildings. The above has been largely done by our efficient inspector, Mr. W. H. Preston. I am sure that our town is now in a very good sanitary condition, barring still the pollution of our village water supply. The sewage, as far as possible, has been kept out of our water supply, but this cannot be perfectly done.

As to a more detailed and specific statistical statement with reference to our typhoid fever cases, I propose to condense and generalize and make a further report, not having had time to gather and formulate the facts up to this date. I will simply add here, however, that out of our total, as above stated, we had eight cases of hemorrhage, five of which were fatal. I wish to state that this

report is quite incomplete to what I would wish it to be, as I have hardly had time to get all the facts that I wished to report into satisfactory shape, considering that my year is cut short three months by the insistence of my report at this time. So far as the present law regulating a Board of Health is concerned, with such men as we have had in this town as a board of trustees (which constitute a Board of Health, with the health officer), they have worked very hard and patiently for the public health. They, as well as the medical, clerical and legal professions, and all the citizens of this town, have co-operated in the most pleasant manner to make our town sanitarily what it is æsthetically, until I am sure our town is to-day in a very good sanitary condition, as will be seen by the report of July, August and September, as above. During the spring and early summer we had an attack of scarlatina in two foreign families who were living under extremely bad sanitary conditions. There were six children in each family, all of whom were taken simultaneously, but in different parts of the village. By strict quarantine and police service there was no spread of the disease from these two families. We are hoping, by sewerage our sink-spouts with good trapping, to prevent any endemic of scarlatina or diphtheria the coming winter.

The following is a copy of a notice sent out by the Board of Health :

ST. JOHNSBURY, VT.,1893.

To.....

Please take notice that the Board of Health within and for the village of St. Johnsbury, upon inspection of the premises owned and occupied by you, located at.... .
 have found such a condition as constitutes, in their opinion, a nuisance, source of filth or cause of sickness, within the meaning of Act No. 82 of the Laws of Vermont, passed in the year 1892, which nuisance, source of filth or cause of sickness is as follows :

.....

In consideration of which, it is ordered by said board that said nuisance, source of filth or cause of sickness be destroyed, removed or prevented within..... days from this date. In default of which further proceedings will be had by said board, as provided in said act.

.....,

Executive Officer of said Board.

Thanking the State Board of Health for their kind co-operation with us in getting our town into what we think a reasonably good sanitary condition, I am,

Yours very respectfully,

GATES B. BULLARD, M. D.,

Health Officer.

SHEFFIELD, VT., Sept. 1, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Sir—Agreeable with the provisions of law, I submit to you a report of the sanitary condition and public health of this town:

There has not been a case of typhoid fever, diphtheria or any other contagious or infectious disease in this town since my appointment as health officer. The sanitary condition is good; the public health is good.

Respectfully yours,

S. A. JONES, M. D.,

Health Officer.

GREENSBORO, VT., August 30, 1893.

State Board of Health.

Sirs—I have the pleasure to report that there has been no epidemic of disease in the town of Stannard during the past year. To the best of my knowledge, the only diseases mentioned by the State Board of Health on the lists which we have had in town is a few cases of simple continued fever. I do not live in the town of Stannard, but practice there, together with other physicians, and I have not personally known, neither have they reported, any other cases to me.

Respectfully submitted,

F. C. KINNEY, M. D.,

Health Officer.

SUTTON, VT., Sept. 18, 1893.

Secretary State Board of Health.

Sir—The town of Sutton is a small town, situated on the east slope or border of the height of land between Barton and Canada. The inhabitants only number eight hundred in all, one village, and small at that—twenty-eight houses and eighty-eight inhabitants. The village is situated on a sloping piece of ground, making drainage good. The people are all neat and tidy, and we can boast of as healthy a village as there is in Northern Vermont—manufacturing, a wagon shop and blacksmithing. Most of the inhabitants are retired farmers with their families, which makes the village very quiet. The town is very hilly and the land dry and loamy, and out from the hills comes pure water for the use of the people. There are no cess-pools or swamps, and the town is free from malaria. The number of deaths for the year 1893 is eight, and no one of these have died of a contagious disease. There have been two cases of typhoid fever, seven cases of measles, no scarlet fever or diphtheria or contagious disease during the year. Rather an unfortunate location for a doctor. I attribute the health of the people here largely to the good spring water and good drainage.

Yours truly,

G. W. COLBY,

Health Officer.

WALDEN, VT., August 30, 1893.

Secretary State Board of Health.

Sir—The sanitary condition of Walden is O. K. Have not had any epidemic of contagious diseases.

S. S. MARTIN, M. D.,
Health Officer.

WHEELLOCK, VT., August 24, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—I have the pleasure to report an entire absence of contagious diseases in this town for the past year. It has been an unusually healthy time; scarcely any deaths, and those mostly of old people.

Yours respectfully,

WALTER H. WEEKS, M. D.,
Health Officer.

CHITTENDEN COUNTY.

BOLTON, VT., August 28, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Dear Sir—Please accept the following report:

There has been no contagious diseases in the town of Bolton in the past year.

The inhabitants of the town have been remarkably healthy. The public buildings have been properly looked after, privies cleaned and disinfected. The water supply is pure.

Respectfully,

DR. O. D. BEMIS,
Health Officer.

P. S.—Post-office address, Jonesville, Vt.

BURLINGTON, VT., August 28, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—Agreeably to Section 8, No. 82, of the statutes passed by the Vermont Legislature, A. D. 1892, I desire to present the following report concerning the sanitary condition and vital statistics of the city of Burlington, Vt.:

We are moving on to obtain a better sanitary condition than has heretofore existed with us.

The "water intake" is to be taken from its present location and carried two and a quarter miles further into the lake and three and a quarter miles from the nearest shore, a place called Appletree Shoal.

This work is to be completed in one year from the present month. Furthermore, the sewage is to be conducted into deeper water, instead of being emptied into shallow water so near the shore.

Last autumn, in view of the possible advent of cholera into this country, a sanitary inspection from house to house was ordered. For this work ten deputy inspectors were appointed, two for each ward. Nearly three thousand inspections were made. Each one was reported to the Board of Health. Blanks were furnished to note the result of each inspection, as follows:

HEALTH DEPARTMENT, BURLINGTON, VT.

H. A. CRANDALL, Health Officer.

Sanitary Survey of Premises.

Owned by.....
 and occupied as a dwelling, store or shop.....
 by.....
 at No. street.

Is sewer on street? Yes.
 No.

Is house attached? Yes. by water closets, sink and drain? Yes.
 No. No. Yes. Yes.
 Yes. No. No. No.
 No. Yes. Yes. Yes.
 No. No. No. No.

Are fixtures trapped? Yes.
 No. No. No. No.

Are traps vented? Yes.
 No. No. No. No.

Is soil pipe carried through the roof? Yes.
 No. No.

Is there a foot vent? Yes.
 No. No.

If not, why?.....

Is there a privy? Yes.
 No.

In what condition? Good.
 Fair
 Foul.

Is there a cess-pool? Yes.
 No.

If so, what condition? Good.
 Fair.
 Foul.

Condition of premises.....

other portions are rich and productive. Its sanitary condition, in the main, is good.

Not any contagious or infectious diseases have been reported during the year, and only a little amount of sickness has existed.

On one of its highways the citizens are accustomed to raise and traffic in swine. Years heretofore they have, from negligence, allowed their piggeries and premises to become foul and unsanitary, emitting a very unwholesome odor, much to the annoyance of travelers on this road. With the assistance of the Board of Health, I have been enabled to remedy this fault in a good degree, and during the summer not much unpleasantness from foul air has been experienced.

Respectfully submitted,

H. A. CRANDALL, M. D.,

Health Officer.

EAST CHARLOTTE, VT., August 28, 1893.

DR. HAMILTON.

Dear Sir—I hereby make report of the sanitary condition of the town of Charlotte, Vt. :

We have had very few cases of contagious diseases—five cases of scarlet fever. Whooping cough has prevailed generally. I cannot give the number, as many of them have not required the attention of a physician; a few cases of German measles. We have many cases of bronchitis and la grippe, which have not been as severe as two years ago; two cases of tuberculosis. The general sanitary condition of the town is good, and the good sense of the people in general helps very much to keep it so. There have been eleven deaths—tuberculosis, 1; apoplexy, 2; old age, 1; heart failure, 1; cancer, 1; meningitis, 1; continued fever, 1; rheumatism, 1; whooping cough, 1; paralysis, 1.

I expected to receive blanks for report. All of which I respectfully submit.

W. H. H. VARNEY, M. D.,

Health Officer.

WINOOSKI, VT., August 31, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Sir—I have the honor to report for the quarter closing to-day, that during the quarter there have been in this village six cases of scarlatina and one death, four cases in the town outside of the village and no deaths. These have occurred in five families. All were quarantined, premises thoroughly disinfected, and no communication with any of these families can be traced.

There have been three cases of typhoid fever, with one death. Patients labored and drank water in adjoining towns.

Measles and whooping cough have been prevalent, but not of a very malignant type, no death resulting unless complicated with pneumonia.

The general condition of our town is much better than last year. We have compelled a strict observance of the burial of dead animals, a fair observance of the care of privy closets, and the introduction of well-constructed water closets, where they can be connected with sewer pipes.

We have made from house to house inspections, and assuredly report much progress in house surroundings, and have been instrumental in reducing the number of "pig-stys."

We have compelled a strict observance of the removal of the dead from our town and village, and have succeeded in making our physicians and undertakers appreciate the necessity of the law in the premises and its strict observance.

While we are not satisfied with what we have accomplished, we have aroused a good public sentiment on the points necessary to be observed, and think much more can be accomplished in the year to come than the one passed.

All of which I have the honor to report to your honorable body.

L. F. BURDICK, M. D.,

Health Officer.

ESSEX JUNCTION, Vt., Sept. 12, 1893.

J. H. HAMILTON, M. D.

My Dear Doctor—I think I have reported some five cases of scarlatina this year. I have also to report four more—nine in all—also three cases of typhoid fever.

Yours, etc.,

C. M. FERRIN,

Health Officer.

HINESBURGH, Vt., August 21, 1893.

Secretary State Board of Health.

Sir—The sanitary condition of the town is good, but not very good in the village. There is a creamery and a slaughter-house located right in the village, and some other things that ought not to exist. The general health of the public has been very good. There have been one death from pneumonia, two cases of typhoid fever and one death, several cases of whooping cough (six, I think). There have been four or five deaths during this time. There are two creameries, two cheese factories and three slaughter-houses. Some of them are kept in good condition.

Respectfully submitted,

H. E. HUNT,

Health Officer.

HUNTINGTON, VT., August 24, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health, Richmond, Vt.

Dear Sir—I hereby tender you my annual report as health officer for the town of Huntington:

The general sanitary condition of the town is in a first-class condition. There has not been a case of scarlet fever, measles, small-pox, diphtheria or typhoid fever in the past year, and not for ten years have the people of this town been so free from epidemics of contagious or communicable disease. There has been no difficulty in promulgating the regulations adopted by the State board, and the selectmen have always been ready to co-operate with your health officer in enforcing the law.

Sincerely yours,

F. D. FALBY, M. D.,

Health Officer.

JERICHO CENTRE, VT., August 30, 1893.

Secretary State Board of Health.

Dear Doctor—I can report the health of this town as very good. We have had no epidemic the past year or contagious disease. During the past month there has been rather more bowel trouble than usual, but no deaths, as far as I am informed. I consider the sanitary condition of the town very good.

Yours very truly,

F. H. CILLEY,

Health Officer.

MILTON, VT., August 30, 1893.

Secretary State Board of Health.

Sir—There have been no contagious or infectious diseases in the town of Milton for the past season. It has been unusually healthy here this season. No fever, and less than usual summer trouble, both among children and adults. The greater activity of physicians has been in the field of obstetrics.

L. J. DIXON,

Health Officer.

RICHMOND, VT., August 28, 1893.

DR. J. H. HAMILTON, Richford, Vt.

Dear Doctor—In accordance with Section 7, Act 82, Laws of 1892, I make the following report :

In the past year the sanitary condition of the town of Richmond has been good, with one or two exceptions, which have been promptly attended to.

The public health of the town has been generally good.

We have had three cases of diphtheria, two of scarlet fever and an epidemic of mumps and whooping cough in town.

The cases of diphtheria and scarlet fever were mild, and were cared for according to law.

Yours truly,

W. L. HEATH,
Health Officer.

SHELBURNE, VT., Sept. 12, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Doctor—The sanitary condition of the town of Shelburne for the past year has been excellent. There has not been a case of scarlet fever, and only three mild cases of diphtheria. Whooping cough has been quite prevalent, but no fatal cases. There have been a few cases of measles, all light in character. The mortality has been very light. Through the winter there was some la grippe and several fatal cases among the aged. We never have typhoid fever here. The prevailing diseases are due to the sudden changes of our climate, mostly catarrhal, throat and lung troubles. As a whole, our town has been very healthy for the past year.

Truly yours,

F. R. STODDARD, M. D.,
Health Officer.

HINESBURGH, VT., August 21, 1893.

State Board of Health.

Sirs—The following is my report for the town of St. George, Vt., from January 1, 1893, to August 1, 1893 :

The sanitary condition of the town is good, and the general health of the public has been excellent. There has not been much sickness and not any deaths, and no contagious or infectious diseases. But one creamery, and that is kept in good condition.

Respectfully submitted,

H. E. HUNT,
Health Officer.

UNDERHILL, VT., August 17, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—I am pleased to make a favorable report respecting the healthfulness and good sanitary condition of the town of Underhill. There have been no epidemic diseases of any nature, and none of an infectious character have been reported to me thus far. Proper precautions have been taken in all places where deemed necessary towards cleanliness, and in a few instances I have been obliged to exercise due authority. Endemic diseases peculiar to this territory have not manifested themselves to an unusual degree, and we can at present be considered a healthy and healthful community.

Respectfully yours,

W. S. NAY, M. D.,
Health Officer.

WESTFORD, VT., Sept. 8, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Sir—The general health of the people of the town of Westford has been good. I have not had a contagious disease in town, and none reported the past year. The sanitary condition is good.

C. S. JENNE, M. D.,
Health Officer.

WILLISTON, VT., August 30, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Sir—Agreeable to Section 7 of Act 82, 1892, I am pleased to report this town in its usual good sanitary condition.

I have not been called upon during the year to act in my official capacity, and aside from a few cases of typhoid fever, we have not suffered from any infectious disease. These typhoid cases, owing to the generous and continual use of disinfectants, have all been isolated ones. One case, which may be of interest, occurred in the coldest part of the winter, and, without doubt, was caused by an infected box of jewelry sent from the room of a sister in Chicago, who had just died of typhoid fever. Some of these articles were removed from her person after death and had never been properly cleansed or disinfected.

I have caused the circulars sent by the board to be distributed. They have been received with interest, and, I am sure, with much benefit.

Respectfully yours,

A. L. BINGHAM,
Health Officer.

ESSEX COUNTY.

BLOOMFIELD, VT., Sept. 9, 1893.

J. H. HAMILTON.

Dear Sir—In regard to the sanitary condition and public health of the town of Bloomfield for the present year, I beg leave to report that, as health officer, my duties have been merely nominal. There has been no complaint to me in regard to sewage, cess-pools, closets, water supply or other matters connected with sanitation. The public health has maintained a high standard, there having been no cases of typhoid or eruptive fevers and no epidemic diseases of any kind, except a few isolated cases of dysentery, none of which proved fatal.

Begging pardon for delay in reporting to you, I remain,

Your obedient servant,

J. F. BLANCHARD, M. D.,

Health Officer.

ISLAND POND, VT., August 29, 1893.

Secretary State Board of Health.

Sir—The general sanitary report of the town of Brighton, Essex county, Vt., from September 1, 1892, to date, is as follows:

Cases of infectious and contagious diseases: Measles, 3; scarlet fever, 2; erysipelas, 1; whooping cough, 5. Recovery resulted in all cases.

Inspections: A general inspection was made in fall and spring, and special ones as requested or thought necessary.

General condition of the town: The town is in a very fair condition. The death rate is low and the amount of sickness small. The water supply is very pure and good, as a rule; about one hundred and fifty families using the aqueduct water, which is taken from a mountain stream, about two miles from the village of Island Pond.

Yours respectfully,

J. H. LINEHAN,

Health Officer.

CANAAN, VT., Sept. 11, 1893.

J. H. HAMILTON, M. D.

Dear Sir—There have been twenty-one cases of measles and one case of membranous croup in the town of Canaan during the past year. There have been from one to two or three cases of this disease in the town each year for the past two or three years. It has been confined to that section of the town bordering on Wallis pond, and seems to be due to some infection originating in that

vicinity. In treating these cases of measles and croup I have endeavored, as far as possible, to prevent general infection by isolating the sick and the use of disinfectants and antiseptics. At this time the sanitary condition of the town is good, and general health prevails.

Respectfully,

A. Q. POTTLE,
Health Officer.

WEST CONCORD, VT., August 30, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—I hereby submit the health report of the town of Concord for the year ending August 31, 1893 :

There has been no epidemic for the last year, only about the usual number of almost every kind of disease usually found in a country practice. The general health of the town is very good.

The same is the condition in Victory and Granby.

Have not had any contagious diseases.

Very respectfully,

R. T. JOHNSON,
Health Officer.

GUILDHALL, VT., Sept. 7, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health, Richford, Vt.

Sir—In this town (Guildhall) and Lemington and in Maidstone we have not had much sickness. A few mild cases of measles ; no deaths. Three cases of pneumonia ; two fatal. Also two deaths from old age ; consumption, one death.

The sanitary condition of all these towns is quite good.

Respectfully,

NATHANIEL S. BOYCE, M. D.,
Health Officer.

LUNENBURG, VT., August 21, 1893.

J. H. HAMILTON, M. D.

Sir—We have had during the past year one case of typhoid fever ; two cases of scarlet fever.

The general health of the town has been good during last year. At present there are a large number of cases of cholera infantum and diarrhœa.

The sanitary condition is at present good.

A. W. SCOTT, M. D.,
Health Officer.

ISLAND POND, VT., August 29, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Sir—The following is the general sanitary report of the town of Norton, Essex county, Vt., from September 1, 1892, to date :

Cases of infectious and contagious diseases : Measles, 1 ; scarlet fever, 3 ; diphtheria, 1 ; membranous croup, 1.

Inspections : Two general inspections were made in the past year. There were no calls for special investigation.

General condition of the town : With the exception of a few tenement houses near lumber mills, the town is in fair condition, but has no general water supply or system of drainage.

Yours respectfully,

J. H. LINEHAN,
Health Officer.

FRANKLIN COUNTY.

BAKERSFIELD, VT., Sept. 6, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—Bakersfield has fortunately been exempt from contagious diseases in the last year, excepting an epidemic of measles, which passed through here in the months of December, January and February, with a few isolated cases in June last.

In all, about one hundred and fifty young and old had the disease, but fortunately no deaths occurred.

There is at present one case of typhoid fever here, and I have warned them to allow no visitors to the patient, and have instructed the family regarding disinfection.

There have been several deaths here in the preceding year, but none that I could trace to bad sewerage, cess-pools, etc.

The water supply here is pure, and the springs from which it is derived are on a side hill far removed from any means of pollution.

The only slaughter-house is a half mile away from the outskirts of the village.

The water closets are mostly pits, but kept scrupulously clean, and no foul odors pervade the atmosphere.

On the whole, Bakersfield is at present in a very healthful condition.

Yours respectfully,

EDMOND J. MELVILLE,
Health Officer.

WEST BERKSHIRE, VT., August 30, 1893.

Secretary State Board of Health.

Sir—Since the last annual report (August, 1892,) this town has enjoyed an unusual degree of health, and almost entirely free from that class relating to zymotic diseases, which concerns the Board of Health. Confronting this immunity from this class of diseases there has been pretty generally a low condition of water in springs and wells; many entirely failed. A certain per cent. were obliged to use what they could get, as unwholesome as it seemed to be. Still, uninterrupted health run on.

I have but one case to report, that of diphtheria—a child less than a year old. There were in the family three older children. No other member contracted the disease. All precautions were observed from contact with the patient. The case terminated fatally.

Respectfully,

G. S. GOODRICH,

Health Officer.

FAIRFIELD, VT., August 26, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Dear Doctor—Have two cases of typhoid fever; same house; one died at the end of the fourth week, and the other died at the end of the second week.

Cellar foul; well in cellar, and house on a side hill, with log sink drain just outside of cellar wall, and on upper side at that. How will I have water examined? Have stopped use of well water and cleaned cellar.

Yours truly,

W. G. E. FLANDERS,

Health Officer.

REPORT OF THE HEALTH OFFICER OF FAIRFAX.

1. Is your locality mountainous, hilly or low land? Hilly.
2. What kinds of rocks prevail? Slate, quartz, etc.
3. Are natural springs numerous or scarce? Numerous.
4. What is the character of the water of the springs and wells? Wells hard, springs soft, generally.
5. Are the streams of water rapid or sluggish? Rapid, comparatively.
6. Is the soil chiefly composed of clay, sand, gravel or loam? All sorts.
7. Are there any ponds or stagnant water? No.
8. Is there much of the original forest remaining? Very little.

9. What are the most common forest trees? Maple, beech and birch.

10. Is the open land mainly cultivated or devoted to grazing? Both, but more grazing and meadow land.

11. What manufactories, and how many hands employed? None.

12. What quarries or mines are open, and how extensively worked? None.

13. Has any record of weather been kept, and can it be obtained? No.

14. What other circumstances exist which may have an influence on the public health? None particularly.

15. How many slaughter-houses are in town, and how far are they from the public highway or village? But one small one, a half mile from the village and ten rods from the highway.

16. What are the prevailing diseases? Lung and bowel troubles in their season.

17. What disease has been epidemic within your recollection? Typhoid fever; diphtheria, about same year, cannot state month.

18. When (in what year and month) did it begin? Fever, 1847 or 1848, September.

19. When (year and month) did it close? 1847 or 1848, October.

20. Was it most severe at the commencement or close? No difference.

21. Did it attack most frequently children, adults or the aged, males or females? Fever in one case was limited to three families, within a quarter of a mile extent; seven cases in all, and all at the same time, including grandfather and mother, two of their children and two grandchildren, in the same house; all recovered; one in another house died.

22. What proportion of the community was affected? Seven persons.

23. Was it confined to a limited locality, or was it widespread? Limited.

24. What proportion of the cases were fatal? One-seventh.

25. Had the disease any peculiarities; that is, did it correspond in symptoms, etc., with the descriptions given in the text-books? No peculiarities.

26. Which of the ordinary symptoms were wanting?

27. What uncommon symptoms were observed? None.

28. What variation in the relative intensity or duration of the common symptoms was noticed? None.

29. If any post mortem examinations were made, what pathological changes were observed? None.

30. What was the character of the season during the prevalence of the epidemic, as to heat and cold, dryness and moisture, rain, snow, etc.? No recollection of any peculiarities.

31. What was the character of the preceding season?

32. What other circumstances or facts connected with this epidemic are worthy of notice? Had it a year or two later than the typhoid fever spoken of above in our school district on the hill in our

village; confined to the children, so that it broke up the summer school; eighteen or twenty cases; no deaths; no cases down the hill, on the river or brooks, and no others in town.

33. Are sporadic cases occurring occasionally when no epidemic is prevailing? They are.

34. Have you observed any notable cases in which contagion was pretty certainly communicated by means of clothing or other fomites? Give particulars. No.

35. Have you known of cases in which contagion seemed to retain vitality long in clothing or rooms? No.

36. Have you known of disease being spread by public funerals? No.

37. What has been your observation regarding the spreading of contagious diseases through schools? Have known of as many as thirty children in one school taking measles from one child being taken sick in school room. The past winter we had what is called German measles about as markedly spread by contagion as measles proper.

38. What effects have you noticed caused by pollution of water by cess-pools, sink-drains, privy-vaults, barn yards or other means? None.

39. What was the source of water supply in any family in which typhoid fever occurred? Wells.

40. If from a well, what was its situation? In objectionable location.

41. If from a river, what was its possibility of receiving drainage from a village or houses above?

42. What, in your opinion, are the more frequent causes of phthisis—heredity, imperfect ventilation, dampness, unsanitary conditions, infection, exposure, mental depression? Heredity and exposure.

43. What are the most common faults in the school houses in your town—ventilation, heating, lighting, other unsanitary conditions? Ventilation.

44. Have you known cases of serious disease from unsanitary conditions in school houses, or from overwork in schools? No.

Dear Doctor—Sickness in my family has prevented my making this sooner and more full; have tried for two weeks to do this.

Asking your indulgence for delay and imperfections,

I am, respectfully,

C. F. HAWLEY, M. D.,

Health Officer.

Fairfax, Vt., Sept. 21, 1893.

FLETCHER, VT., August 30, 1893.

State Board of Health.

Sirs—I respectfully beg leave to submit the following report as health officer for the town of Fletcher :

Births, 18, of which 10 were males, 8 females ; all white.

Deaths, 22 ; 11 males, 11 females.

Cause of death: Pneumonia, 3 ; whooping cough, 1 ; consumption, 1 ; la grippe, 2 ; apoplexy, 1 ; paralysis, 2 ; diphtheria, 2 ; heart disease, 3 ; typhoid fever, 1 ; premature birth, 2 ; old age, 1 ; still born, 1 ; kidney disease, 1 ; unknown, 1.

Of those that died 5 were under 1 year of age, 3 were over 1 year and under 5 years, 1 was over 5 years and under 10 years, 2 were over 10 years and under 20 years, 1 was over 30 years and under 40 years, 1 was over 50 years and under 60 years, 1 was over 60 years and under 70 years, 5 were over 70 years and under 80 years, 3 were over 80 years and under 85 years.

Seventeen were born in Vermont, 1 each in New York, Massachusetts and New Hampshire. Two were born in the Province of Quebec.

The cases of diphtheria were two children, who died, one March 4, the other March 5, 1892. Both belonged to the same family, who had recently removed from the Province of Quebec. The case of typhoid fever was a young man, who came from Hartford, Conn., and in whose family there were several cases of typhoid fever, his mother having died of said disease.

I would say that there has been no epidemic in Fletcher during the past year, except in the spring of 1892, there were a few cases of la grippe. The population of Fletcher is 793, census of 1890. I regret that I have no blanks for making the yearly report. I do not know as the State furnishes such blanks ; if so, I have not received any.

Respectfully submitted,

E. R. BRUSH,

Health Officer.

FRANKLIN, VT., Sept. 7, 1893.

DR. J. H. HAMILTON.

Dear Sir—The sanitary condition of the town of Franklin is good, and the people are unusually well.

Yours truly,

J. B. HALL,

Health Officer.

GEORGIA, VT., Sept. 1, 1893.

DR. J. H. HAMILTON, Richford, Vt.

Dear Doctor—Your kind letter and certificate of appointment to the office of health officer of Georgia was received to-night.

I hereby accept the appointment, and shall endeavor to discharge the duties of said office faithfully and well. Thank you kindly for the hints as to the method of procedure; will be pleased to receive the set of blanks, etc.

The health report, as observed since coming here, would be brief and very general. The sanitary condition is most excellent. The people are intelligent, and take every precaution to remove all nuisances and prevent contamination of springs, wells, etc.

The general health has been extremely good. A few cases of slight diarrhœa and a few of whooping cough, in the south part of the town, are all that are necessary to mention. No other infectious diseases during my stay. On the whole, the public health is extraordinarily good this season. I am uncertain as to what further a report should contain.

Most truly yours, •

W. LINDSAY, M. D.,

Health Officer.

MONTGOMERY, VT., August 24, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—I have the honor to make this my first annual report as health officer of Montgomery, Vt.:

Since my appointment, December 10, 1892, as health officer for this town, I can say it has been a general time of health, but little sickness in town. We have had no epidemics, no contagious diseases dangerous to the public health. There has been less sickness the past year than for at least ten years, but very few deaths compared with other years. One family of five children had measles. No other cases in town. A few cases of rotheln and pertussis have been reported, but all of a very mild form. I cannot report the number of deaths or the causes of deaths, as my neighboring physicians have made no report to me. Therefore I most respectfully submit this imperfect report, hoping next year to be better prepared to make a more complete report.

Sincerely,

B. W. DAVIS, M. D.,

Health Officer.

RICHFORD, VT., Sept. 19, 1893.

Secretary State Board of Health.

Dear Sir—In summing up the health of the town during the past year I find that we have been very free from contagious diseases of all kinds, particularly those depending upon or originating from bad sewerage. This in a great part is due to our efficient line of sewerage and pure drinking water. We have only to continue our line of sewers a little further to take in Province street, which is badly in need of a sewer, also a sewer across to the school house, to have an effective system. This I should recommend being done the ensuing year. There is a slaughter-house within the corporation limits, which is a source of annoyance and detriment to people in that vicinity, and I should recommend its removal at an early date.

Yours truly,

R. M. PELTON,
Health Officer.

SHELDON, VT., August 1, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—In compliance with Section 7, Acts of 1892; I have the pleasure of reporting to you the sanitary condition and general health of the public for the town of Sheldon for the year past, ending August 1, 1893.

Our town and village are in as nearly perfect sanitary condition as it is possible to find. There is hardly a farm house in town or a house in the village that is not supplied with running water from a clear mountain spring; consequently the source of disease from impure drinking water is very small.

In the early spring my attention was called to a few local unsanitary barn yards and pig pens, which were made so by the putrefaction of the animal remains of slaughtered calves, thrown either to the hogs or left in piles back of the barn, expecting probably in a short time that they would be removed and buried.

These, if allowed to remain until warm or thawing weather comes on, are surely causes of disease, and the attention of the farmer should be called to the fact.

To my knowledge, there have been no cases in town during the past year of either scarlatina, malarial fever, typhus or typhoid fever, and few of what is called remittent or continued fever. There were four cases of diphtheria, with three deaths. These were in one family, and the first case was taken sick within one week from the time they moved into town from an adjoining town. A general epidemic of measles prevailed during the spring, probably two hundred and fifty or three hundred cases. There were many severe cases, and one death, the result of capillary bronchitis as a complication.

Whooping cough has also been epidemic, following close and contiguous with the measles. There have been few cases of dysentery, and more than an average amount of diarrhoea in children thus far this season.

Yours very respectfully,

E. M. BROWN,
Health Officer.

ST. ALBANS, VT., August 31, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—Enclosed you will find my report for the year ending August 31, 1893. Dr. A. A. Clafin is the only physician who has sent me his report.

From what I know of the general health of this town and village I have reason to believe that it has seldom been better than it has been for the last year. The sanitary condition of the village has been much improved by an increase in the number and capacity of its sewers, by the drainage and filling of its low and wet places. While this is true, much yet remains to be done.

Yours,

GEO. DUNSMORE,
Health Officer.

SWANTON, VT., August 29, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health, Richford, Vt.

Sir—There have been quite a good number of cases of roseola, one case of diphtheria and four cases of scarlatina, all of which have been mild in type.

Efforts have been made to secure against contamination of the public water supply of the village.

Sanitary work has also been done in other lines, and the town is in a most excellent condition. Health has prevailed to an unusual extent, especially during the summer months, thus far, and the town has maintained its reputation of being one of the healthiest towns in the State.

H. R. WILDER,
Health Officer.

GRAND ISLE COUNTY.

ALBURGH, VT., Sept. 11, 1893.

J. H. HAMILTON, M. D.

Dear Doctor—The general health is good ; has not been better in ten years ; three cases of typhoid in August ; no epidemic.

F. L. LADUE, M. D.,

Health Officer.

GRAND ISLE, VT., August 21, 1893.

J. H. HAMILTON, M. D.

Dear Sir—In accordance with the law, I hereby give you my report for the year ending August 31, 1893, regarding the sanitary condition and public health of this town :

I am not able to learn of anything damaging to health here. I know of no one seriously ill at present, save an aged person dying of old age. There is no contagious disease in town, not that I can find.

Yours truly,

B. HAYNES, M. D.,

Health Officer.

NORTH HERO, VT., August 15, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—Complying with Section 7 of Act No. 82 of the Acts of 1892, I beg to report as follows :

This town has enjoyed a year of very general health. There has been no epidemic during the year, save a mild one of whooping cough. Our sanitary condition, while by no means perfect, is perhaps rather better than the average of country communities. Our water supply is from the lake, and is, I believe, healthful. In a few instances there are drains entering in too close proximity to the source of supply. In some cases I have induced parties to carry the supply pipe further into the lake.

As in too many other instances, our school-house closets are in a deplorable condition.

Perhaps the constant ventilation given us by our lake winds is a factor in our general good health.

Respectfully submitted,

GEO. B. HYDE, M. D.,

Health Officer.

SOUTH HERO, VT., August 29, 1893.

Secretary State Board of Health.

Dear Sir—The sanitary condition of the town of South Hero is excellent. The inhabitants take pride in keeping their premises cleanly and free from filth and garbage. No contagious diseases have prevailed during the year, and the general health at this time is good.

Respectfully yours,

C. W. PETTY,
Health Officer.

LAMOILLE COUNTY.

CAMBRIDGE, VT., Sept. 21, 1893.

J. H. HAMILTON, M. D.

Dear Doctor—The general sanitary condition of our town has been so far very good this year.

We have had no serious epidemic diseases. In the winter months we had a few scattering cases of la grippe and pneumonia, which proved fatal to old people and very young children. Zymotic diseases have not prevailed epidemically. We have had a few sporadic cases of measles and scarlatina, which were so slight that in the majority of cases a physician was not called. I have not known of a case of continued fever this year in our town. We have had a few cases of dysentery in a mild form and a few cases of cholera infantum.

Truly yours,

J. B. MORGAN, M. D.,
Health Officer.

HYDE PARK, VT., August 31, 1893.

State Board of Health.

Gentlemen—Since August 1, 1892, no contagious diseases have been prevalent in town, excepting German measles, which, during March and April, attacked nearly all the children in Hyde Park; cases were all mild, only three or four requiring medical treatment. During September and October there were some six or seven cases of typhoid fever, with one death (on the sixth day, from internal hemorrhage). Three of these cases were in one family, and probably originated from using contaminated cistern water. The other cases could not be traced to any certain cause. In some cases infection occurred while working or visiting in other towns.

Generally speaking, the sanitary condition of the town has been good for the past year, calling for but little interference from the local board.

Three or four cases of typhoid fever in the east part of the town were not reported by the attending physicians. Am not certain that these cases were really typhoid, but have heard so. All recovered.

WM. W. GEORGE, M. D.,
Health Officer.

JOHNSON, VT., August 30, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—There has been no epidemic in this vicinity for the past year, nor has there been a death from any contagious or infectious disease. There has been one case of scarlet fever brought to the town, but by strict quarantine measures the disease did not spread.

The sanitary condition of the town is in very good condition. Considerable effort has been made of late by the village in procuring water from springs, and nearly all the houses are now, or will be very soon, supplied in this manner with the purest water that flows. The town is also to be congratulated upon having a new system of sewerage placed in the principal streets of the village.

The greatest thing now needed in this town in the interest of health is properly heated and ventilated school houses for the public schools. I hope that in one year from now I may report an improvement in this line.

JOEL ALLEN,
Health Officer.

MORRISVILLE, VT., Sept. 14, 1893.

J. H. HAMILTON, M. D.

Dear Doctor—I have been late about making my annual report, as I have been on the sick list and have not done anything.

The general health of the town is good. We have had no epidemic in the past year, a very few cases of typhoid fever, and only one or two of diphtheria. The village is putting in a good system of sewerage, and at the present time the sanitary condition of the town and village is good.

Respectfully yours,

C. C. RUBLEE,
Health Officer.

P. S.—Dr. Johnson has left town, and turned his papers as health officer of Elmore over to me. Shall I look after it?

STOWE, VT., Sept. 1, 1893.

State Board of Health.

Gentlemen—Pursuant to the statute regulations of the Laws of 1892, the local board was organized, and has acted in harmony with the health officer for the year ending August 31, 1893.

But very few occasions have presented where the local Board of Health or health officer has found it necessary to exercise their official prerogative. Your health officer has officiated at the inquest of a man killed in a lumber camp; at the development of typhoid fever, which threatened to be epidemic; to a supposed case of diphtheria; to determine the disease roseola and its contagious character; to quarantine school against whooping cough; to suppress nuisances, four times; and has devoted considerable time to sanitary talks and sanitary advice in regard to drainage, etc.

No prevailing disease or epidemic of a serious character has existed during the year, except during the winter of 1892 and 1893, when seventy-three cases of whooping cough and twenty-eight cases of roseola were reported.

Eleven cases of pneumonia, five cases of typhoid fever, twelve cases of erysipelas, three cases of cholera infantum, two cases of cerebro-spinal meningitis, four cases of continued fever, four cases of phthisis and a few cases of dysentery have been reported during the year. No cases of scarlatina, small-pox, diphtheria, membranous croup, puerperal fever or typho-malarial fever have been reported.

An average of about three-fourths of the entire population have been in good health. The remaining fourth are either chronic invalids or suffering from some acute disease.

Total number of deaths in town during the year ending August 31, 1893, has been twenty-three, of which three have died from phthisis, five from pneumonia, four from Bright's disease, three from cancer, two from heart disease, three killed, one from cholera infantum, one from septicæmia and one from cerebro-spinal meningitis.

The entire population of eighteen hundred, with very few exceptions, are native, and the adult portion is principally engaged in farming and lumbering, the pursuit of which conduces to a vigorous and well-developed class of people.

While we have the benefit of excellent spring water running to our dwellings, of pure air, tempered by our abrupt hills, and winding valleys, with swiftly running streams, our dwellings, with but very few exceptions, are badly heated and poorly ventilated, with but little, if any, attention paid to drainage or sewerage, and badly constructed for the purposes of health or convenience, with barns, privies and pig-pens distressingly near their owners' dwellings in many cases.

Our streets and yards are clean, however, and no slaughter-houses, cess-pools or other nuisances are within troublesome distance of streets or neighbors, and our citizens are careful in the disposition of garbage or anything considered detrimental to public health.

Comparatively speaking, we are as a town in a good sanitary condition, although, like the balance of the State, we are a decade behind in sanitary science.

Respectfully submitted,

WM. G. CHURCH,
Health Officer.

WATERVILLE, VT., August 28, 1893.

Secretary State Board of Health.

Sir—I have been away for about a month, and on my return find that there has been but very little sickness. The only case of contagious disease we have had is varicella, which broke out in the family of Alpha Stables, on Main street. There are five in the family, and two were attacked; no deaths. The origin of the disease is unknown.

Very truly,

GEO. B. HULBURD, M. D.,
Health Officer.

CRAFTSBURY, VT., Sept. 1, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health.

No contagious or infectious disease has prevailed in the town of Wolcott for the last year, and the general health and sanitary condition of the town appears fairly good.

F. S. DILLINGHAM,
Health Officer.

ORANGE COUNTY.

BRADFORD, VT., August 17, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

My Dear Sir—It becomes my duty to report to you the state of affairs as regards disease. The sanitary condition of our town is above the average. I have hearty co-operation from the village

trustees and selectmen, and all questions have been satisfactorily adjusted. There is no epidemic disease in our town, or malignant disease. No typhoid fever, diphtheria, scarlet fever or other contagious or infectious disease. My brother physicians in town will corroborate my statement in this. Now, if the State Board of Health require any blank form filled, please acquaint me with my duty. Meanwhile, with high personal regard, I am,

Very sincerely yours.

J. H. JONES,
Health Officer.

BROOKFIELD, VT., ———, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Sir—Scarlatina has broken out in the town of Braintree. Number of families infected, six; number of cases, six. Strict precautions were taken to isolate the cases as soon as possible. Dr. A. C. Bailey of West Randolph treated the first case. Do not know the origin of it. I have treated the other five cases, and since recovery have had rooms, furniture, etc., thoroughly disinfected. The general health of this town (Brookfield) is good, no epidemics prevailing, nor has there been, the past year.

Should have sent report of outbreak of scarlatina at Braintree at once, but Dr. Bailey said he had sent one for all the cases. Will be more prompt in the future.

V. C. GOODRICH,
Health Officer.

BROOKFIELD, VT., Sept. 28, 1893.

J. H. HAMILTON, M. D., Secretary, etc.

Dear Sir—I have not been supplied with blanks for making out my annual report. Our town has been notably free from epidemics of all kinds the past year. I had three cases of diphtheria last winter, all in one family, but kept it confined to the same family where it originated. I had the house thoroughly cleansed and disinfected, also the premises around the house. The general health of the town the past year has been very good. I believe the sanitary condition of the town to be as good as any other country town in the State. I have ordered a few drains and cess-pools removed and changed. Have had two or three short epidemics of measles and scarlatina, but they have been in other towns. I will also state that the general health of the town is very good at present. No typhoid fever, which is very exceptional for this locality.

Respectfully,

V. C. GOODRICH,
Health Officer.

CHelsea, Vt., Sept. 25, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Dear Doctor—The duties of the health officer of the town of Chelsea for the past year have not been very arduous, only three instances of complaints for the abolishment of nuisances, and which were attended to at once and removed. But very little sickness during the year, not a case of diphtheria or typhoid fever, which speaks well for the sanitary condition of the town of Chelsea.

Yours truly,

STORY N. GOSS,

Health Officer.

EAST CORINTH, Vt., August 28, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health, Richford, Vt.

Dear Sir—Upon receiving notice of my appointment as health officer, I notified the selectmen of the same, and we then organized as a town Board of Health. When it has been necessary we have looked after the sanitary condition of the town. The people, as a whole, are in a very healthy condition. We have not had any epidemic of contagious disease within the last year. In April I had one case of membranous croup. It was a child, aged five years; lived only six days after; and during the sickness I took all necessary precautions in reference to disinfecting the house and person of each member of the family. There has not been a case of diphtheria or typhoid fever in town during the last year. I have tried to look after the sanitary condition of the town to the best of my ability. Will you please send me some more of the circulars No. 10,

And oblige,

CHAS. N. FOX, M. D.,

Health Officer.

FAIRLEE, Vt., August 31, 1893.

Secretary State Board of Health.

Sir—No infectious or contagious disease has broken out in the town of Fairlee during the past year. Precautions taken: Cleanliness out of doors and in doors. No householder or physician has reported any communicable disease during the year. The sanitary condition and public health of this town are good.

H. H. GILLETTE,

Health Officer.

WELLS RIVER, VT., Sept. 8, 1898.

Secretary State Board of Health.

Sir—In compliance with the law directing local health officers to make an annual report to the State board, I beg to submit the following:

There have been reported to the health officer for the town of Newbury during the year the following cases of contagious disease: Diphtheria, 2; scarlatina, 6; measles, 6; erysipelas, 1.

There has been, and at present prevails, an epidemic of whooping cough, affecting most of the eligible children of the village, none of which have been reported, and few of whom have required the services of a physician.

Scarlatina and measles prevailed during the early spring in a sporadic way and of mild character; probably not a quarter of the whole number of cases existing were reported, many of them not employing a physician.

All cases that came to my notice were quarantined, and due precautions taken against an epidemic.

There has been no case of death from contagious disease in this town during the past year.

There have been no complaints made to the health officer on account of nuisances or other matters coming under his jurisdiction during the past year, and I have to report that the sanitary condition of this village (Wells River), as regards drainage, water supply, etc., is in a very satisfactory condition.

Respectfully yours,

HENRY H. LEE, M. D.,

Health Officer.

BARRE, VT., August 26, 1898.

Secretary State Board of Health.

Sir—The annual report for the town of Orange contains nothing of moment. No cases of contagious diseases have been reported. As near as I am able to ascertain, the general health of the public is good. No epidemics are at present among them.

Respectfully,

C. F. CAMP,

Health Officer.

WEST RANDOLPH, VT., August 31, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—The sanitary condition and health of the public generally is at present very good. There are no cases of any of the diseases included in those that should be reported to the State board, neither has there been, except as reported before now. The sanitary condition of the town generally is very good indeed. The local board has investigated several places in the village of West Randolph during the summer and cleaned up some of them, so that at present we know of no place of filth that will be likely to give rise to disease. There is some difficulty in getting the people to understand the importance of cleaning up around their premises, but a greater one is found when we try to get the signature of physicians to their knowledge of cases which should be reported to the local health officer.

They are supplied with the necessary papers, and have no excuse for such negligence. We hope to do better the coming year.

Yours truly,

A. C. BAILEY,
Health Officer.

SOUTH STRAFFORD, VT., August 28, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—I beg to submit to you the following concerning the sanitary condition and public health in this town:

There is not at present, neither has there been, any case or cases of typhoid fever, diphtheria, scarlatina, cholera, measles or other contagious or infectious disease, other than two cases of measles, both of which came from Boston here several weeks since, and are now recovered. The sanitary condition is generally good, and there has been no occasion to interfere in any instance to remove any nuisance.

The water supply seems nowhere to be contaminated, there being no common supply, nearly every house getting its water independently from a living spring.

Respectfully submitted,

F. F. CHAFFEE,
Health Officer.

THETFORD, VT., August 31, 1893.

Secretary State Board of Health.

Sir—No infectious or contagious disease has broken out in the town of Thetford during the past year. Precautions taken: Cleanliness out of doors and in doors. No householder or physician has reported any communicable disease during the year. The sanitary condition and public health of this town are good.

H. H. GILLETTE,

Health Officer.

WEST TOPSHAM, VT., Sept. 9, 1893.

To the Honorable State Board of Health.

Gentlemen—The sanitary condition of Topsham is very good. There has been no epidemic of any disease, and at the present time there is not a case of typhoid fever or any other infectious or contagious disease.

Yours truly,

HORACE L. WATSON, M. D.,

Health Officer.

WEST FAIRLEE, Sept. 8, 1893.

Secretary State Board of Health.

Sir—The health of the towns of Vershire and West Fairlee has been good, less than the usual amount of disease prevailing.

There has been no complaint made to this office from the town of Vershire of any cases of contagious or infectious disease.

In the town of West Fairlee there have been three cases of diphtheria and five cases of pertussis.

Two of the cases of diphtheria occurred in one house, with an interval of several weeks between them, and I have directed the owner of the premises to have them completely cleansed and placed in good sanitary condition.

One case of diphtheria was evidently imported. It was not severe. The premises were cleansed as perfectly as possible, and no other cases have occurred, although several weeks have elapsed.

The cases of pertussis were all in one school district and in two families. One case was very severe. All recovered.

There are no cases of typhoid fever.

Respectfully submitted,

T. G. SIMPSON,

Health Officer.

WASHINGTON, VT., Sept. 11, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health.

Sir—The sanitary condition of this town is good, so far as I can learn. The slaughter-house is nearly a quarter of a mile from any dwelling, and is kept in very good condition. Our water supply is from springs and wells. Two large brooks run through the village. We have had no contagious diseases.

Yours respectfully,

F. A. WARNER,
Health Officer.

WILLIAMSTOWN, VT., August 28, 1893.

Secretary State Board of Health.

Dear Sir—In compliance with the requirements of the State Board of Health, I submit to you my annual report for the town of Williamstown, viz. :

Up to August 1st I have had no occasion to report any cases of contagious or infectious diseases. Since then there have come to my knowledge ten cases of measles. Only two of these have received medical attendance to my knowledge. I saw one case twice and another once. These ten cases were confined to two school districts adjoining, and all were of mild form. I have seen nor heard of no new cases for ten days.

At present writing I have one case of typhoid fever, the first and only case that has appeared this year. The patient came here from her home in another town, August 16, and the next day was taken sick ; consequently she could not have contracted the disease here.

This town has been unusually free from disease this year thus far. I am the only physician in town, and that almost seems to be one too many some of the time.

On account of the new granite industry here and the coming of the railroad to our town, the village population has increased somewhat in the past two years. However, the mortality has not increased proportionately, but rather decreased, if either, showing, I think, that our sanitary condition cannot be considered bad.

I have endeavored to fulfill the requirements of my office, and shall continue so to do.

Yours respectfully,

E. B. WATSON,
Health Officer.

ORLEANS COUNTY.

ALBANY, VT., August 28, 1893.

J. H. HAMILTON, Secretary State Board of Health of Vermont.

Sir—The town of Albany has for the most part been in an excellent state of health during the past year.

During the month of October, 1892, there was a case of typhoid fever in a lad seventeen years of age, who had been at school in the town of Craftsbury and drank well water. This was communicated to the mother, two sisters, one brother and an aunt. The mother, two sisters and the aunt died of the disease. The mother, sisters and aunt were all under "christian science" treatment, until they were in very bad condition, and, strange to say, would declare that they were not sick.

There is now one case of typhoid fever of mild type in a boy of nineteen years. Water from the well, of which he drank, under the microscope, is alive with microbes and animalcula that may be seen with the naked eye when the bottle is held toward the light.

There has been no case of diphtheria in town during the year.

During March, April and May there was an epidemic of measles, generally mild, and no deaths.

There have been no cases of scarlatina in town during the year. Several persons are now suffering from mumps.

There are no cases of consumption in town that I am aware of.

J. C. CAMPBELL, M. D.,

Health Officer.

BARTON, VT., August 28, 1893.

DR. HAMILTON.

Sir—According to Section 7 of Act No. 82 of the Laws of 1892, I report to you the sanitary condition and public health of the town of Barton. After a thorough inspection of all sources that might be liable to develop disease, such as insufficient or defective drainage, polluted or suspicious water supply, I find nothing that tends to exert an injurious influence. There is no better proof of the sanitary condition of the town of Barton than the healthful condition of its inhabitants, who are all free from infectious and contagious diseases.

DR. MERRILL F. PRIME,

Health Officer.

BARTON LANDING, VT., Sept. 29, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Dear Sir—I have no report to make ; have been sick and crowded with work, so have neglected this ; have not even looked over the papers.

Respectfully,

E. O. RANNEY,
Health Officer.

BROWNINGTON, VT., August 15, 1893.

J. H. HAMILTON, Secretary, etc.

Sir—In accordance with the requirements of the law, I submit my report as health officer of the town :

By reason of its, for the most part, high altitude and good water supply, together with a somewhat sparse population, the right conditions prevail in Brownington for natural sanitary circumstances. In the seven or eight years I have been in town, there have been very few cases of sickness that could be, even by remote suspicion, attributed to filthy causes. This has been especially so the past year. There has been no case of typhoid fever, diphtheria or scarlatina in town throughout the year, to my knowledge. Most of the sickness here is incident to other causes.

Of sickness and death in general, I dare say, we have a due percentage according to population.

There were half a dozen cases of measles and a few cases of mumps in the early spring. These cases were contracted in Barton, as I have understood. At present there is very little sickness.

Respectfully submitted,

W. F. GILMAN,
Health Officer.

WEST CHARLESTON, VT., Sept. 21, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—I must acknowledge my negligence in not knowing that, as health officer, I was obliged to make a report, and have consequently failed to keep such records as might have been of some assistance. Now, I can only say that during the past year there has not, in the towns of Charleston and Holland, been an epidemic of measles, scarlatina or diphtheria, nor, to my knowledge, a single case of them, during the year.

We have had, in both towns and in Morgan and a part of Derby, in close proximity to Charleston, an epidemic of whooping cough (pertussis)—I think as many as sixty cases in the towns of Charleston and Holland, but very light in severity, so light that it was difficult to keep the patients at all isolated. We have not to any extent had the usual summer bowel diseases common to children in these towns. In fact, we are usually free from them—due, in part, to our supply of pure drinking water from the hills and better sanitary conditions than are common to country towns.

Respectfully yours,

C. S. HINMAN,
Health Officer.

P. S.—As I am leaving to-day for a trip to California, I don't see but the above will be obliged to be accepted as my report, although I can arrange to answer any questions that may be asked if I have not given all that is required.

COVENTRY, VT., August 31, 1893.

Secretary of the State Board of Health.

Sir—In reporting the health of the people for the town of Coventry, I will say that we have had no epidemic disease here during the past year—one of good health.

Yours,

F. D. BADGER,
Health Officer.

NORTH CRAFTSBURY, VT., Sept. 26, 1893.

J. H. HAMILTON, Secretary, Richford, Vt.

Sir—The past year has been one of quite general health in Craftsbury, with the exception of an epidemic of jaundice, and also of measles, neither of which have been very severe, as no deaths have resulted from them.

Just now we are having quite a number of cases of febricula, and last April I treated a case of typhoid fever, it being a young lady, who contracted the disease at Newport, Vt., and came home and went through with the disease.

A great deal of pains are being taken to get pure drinking water and to clean up sloop holes, and, in general, to keep clean, and it seems the efforts of the Board of Health are beginning to tell in the direction of better and cleaner surroundings.

Yours truly,

C. W. DUSTAN, M. D.,
Health Officer.

DERBY, VT., Sept. 9, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—Please excuse me for not sending in my report earlier. I supposed I would receive a blank for annual report. My report is not full, but nearly correct as far as it goes. I will endeavor to do better next year. Acting under the statute of 1892, the board is cleaning up or removing the various nuisances in town.

Yours truly,

E. W. CLARK,

Health Officer.

GREENSBORO, VT., August 30, 1893.

State Board of Health.

Sirs—I have the pleasure to report that we have had no endemic or epidemic diseases in this town for the year now ending. One death from phthisis, six sporadic cases of measles, one case of typhoid fever during October, 1892, and six cases of simple continued fever, are all the diseases mentioned on the list which we have had in town.

Respectfully submitted,

F. C. KINNEY, M. D.,

Health Officer.

IRASBURGH, VT., August 16, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—I submit the following report for the town of Irasburgh:

There has been no epidemic in the town since January 1. The general health of the town has been good. There is a fair system of sewerage in the village, but the water supply of the village is not of the best, being, with one exception, from wells.

The outhouses, etc., as far as I know, are kept fairly clean, and the general sanitary condition of the town is fair, but I hope to see it improved.

Yours truly,

GEO. H. NEWTON, M. D.,

Health Officer.

TROY, VT., August 28, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Doctor—In making my report as health officer for the towns of Jay and Westfield, it gives me pleasure to say that neither town has been visited by any epidemic since the present law went into effect. The inhabitants are engaged in farming, and a small portion in lumbering.

The majority of the families have pure spring water in or at the buildings, and those who have wells I have strongly urged to discontinue their use and to use spring water. Privy vaults and cess-pools are kept deodorized and disinfected in the main.

Most of the families use fum. sulph. or acid carbolici in sink drains. With the present law I feel we will not have any outbreak of infectious or contagious disease.

Yours truly,

F. S. GRAY,
Health Officer.

LOWELL, VT., August 31, 1893.

Secretary State Board of Health.

Sir—This town is in a very healthy condition ; nothing of a contagious nature in town.

H. H. HILL,
Health Officer.

NEWPORT, VT., August 26, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health, Richford, Vt.

Dear Doctor—In response to Section 7, Act 82 of the Laws of 1892, I would respectfully report that the sanitary condition of this town is not up to my idea of proper, healthful sanitation, and never will be until the people are better educated up to the necessities of proper drainage and sewerage, and the advent of a few funerals among the people who are always opposing legislation which tends to lift up their needs.

The public health of the town is fair. No epidemic prevails. There are a few cases reported of typhoid fever, and there is considerable choleric difficulty among babies who nurse the bottle.

There have been several sudden deaths from so-called cholera infantum in this village during this month.

There is considerable sickness in this village now of a typho-malarial type, running from one to two weeks. No fatalities reported. I am, sir, very respectfully,

Your obedient servant,

C. F. BRANCH, M. D.,
Health Officer.

NORTH TROY, VT., August 14, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health, Rich-
ford, Vt.

Dear Doctor—In regard to the state of the public health of the town of Troy, I have to report favorably.

No epidemics have prevailed in our limits during the past year worth mentioning, excepting one of measles, which was confined to the south end of the town.

The summer of 1892 produced very few cases of bowel diseases, and the summer of 1893 has thus far been very free from the same troubles.

The winter of 1892-'93 witnessed a very mild epidemic of influenza, and comparatively few cases of pneumonia and other diseases of the respiratory apparatus.

Fevers of all sorts have been very few among us, and, taking the year as a whole, the public health has been exceptionally good.

I append a list of cases of diseases that have been reported :

	CASES.	DEATHS.
Erysipelas	3	..
Measles	22	..
Phthisis.....	2	2
Scarlatina	4	..
Typhoid fever.....	3	..

I remain, truly yours,

F. W. COMINGS,

Health Officer.

RUTLAND COUNTY.

BENSON, VT., August 23, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Dear Doctor—In compliance with the statute requiring health officers to make an annual report in August, I herewith report to you the sanitary condition of Benson and West Haven :

There has been no epidemic in these towns the past year. There have been none of the diseases usually denominated protective, such as measles, pertussis, scarlet fever, etc. Have had two cases of diphtheria, both cases occurring in the same family, and the cause was not clearly made out. Have had no cases of typhoid fever ; a few cases of malarial fever. The present season is developing a good many cases of cholera morbus of an asthenic type. The

days are warm and the nights cool, which induces bowel trouble. Aside from the obvious tendency to cholera morbus and kindred ailments which exists, more or less, every year at this time, the health of the two towns, Benson and West Haven, is good. Grip and pneumonia were quite prevalent during the latter part of the winter and spring, but when May appeared the grip disappeared, and since then there has been comparatively little sickness. The health of the towns has been more than ordinarily good. I was called upon once during the spring to abate a nuisance, and upon investigation I found that some decaying vegetables and apples had been left contiguous to the sleeping room of one of our citizens, and I ordered them removed, and since then I have not had to exercise my official functions.

In concluding, I would say that we have had very few diseases the past year in any way dependent upon bacteria as a cause, and that the present condition sanitarily of Benson and West Haven is better than they have averaged the past twenty years.

JASPER P. NEWTON,

Health Officer.

BRANDON, VT., August 30, 1893.

Secretary State Board of Health.

Sir—We have had during the year, in Brandon, seven cases of diphtheria; in Goshen, one case of diphtheria; of this number three proved fatal in the town of Brandon, none in Goshen. During the same time we have had five cases of scarlet fever in Brandon, with one death. No case of scarlet fever has occurred in Goshen.

In my opinion, these cases were nearly all brought to us. The cases of scarlet fever were from a young man who came here with the disease. The diphtheria cases were all in families or near relations to families who had the disease last year, so that, I think, it was from poison that had been wintered over in the families or relatives' families. One case occurred in the same family and in the same room where it occurred the year before. Our cases of diphtheria have been so carefully managed that no second case has occurred in the same family. The type of the disease has been, in the main, light. All the cases of diphtheria that have died have taken on the croupal form, and all that have taken on this form have proved fatal. I think that all those cases that have had a thorough, careful, mercurial course of treatment have recovered.

This embraces all the contagious diseases we have been afflicted with.

Most respectfully yours,

C. W. PECK,

Health Officer.

CASTLETON, VT., August 28, 1893.

MR. J. H. HAMILTON, Secretary State Board of Health.

Sir—I herewith submit my annual report of the sanitary condition of the town of Castleton :

I think at no period during the past ten years has it been as healthy or as free from disease as at the present time, and for the past few months. I have not received from either of the other physicians a notice of a single case of contagious disease since my appointment as health officer, nor have I in my own practice had within town limits but four cases of the diphtheritic type. Of these two were very mild, and the other two, though severe, went on to recovery, and by careful watch and sanitary measures were confined wholly to the one family and house—a mother and daughter. We have had a few cases of whooping cough, brought to my notice incidentally. I have seen but one case professionally, and that very light. Have had no scarlet fever, measles, cholera, typhoid; one case typho-malarial, which recovered; one cerebro spinal meningitis, recovered; and have not met with or received notice of any other contagious disease in town.

I think, generally, the buildings and surroundings throughout the town, and village particularly, are in good sanitary condition, and certainly the state of general health would indicate it. If you have blanks for this report, or if it is not complete enough, if you will kindly inform me if you wish a statement of the names, ages, dates, etc., I will furnish same. I would say that I was absent in California about the time the blanks I have received were sent; and if you sent them for this report they may have been mislaid or lost before my return. Awaiting any further instructions, I am

Respectfully,

G. A. ROBERTS, M. D.,

Health Officer.

CHITTENDEN, VT., August 24, 1893.

MR. J. H. HAMILTON, Secretary State Board of Health.

Sir—In making my annual report, I would say that the town is in a good sanitary condition, and, with the exception of three cases of scarlet fever—one case at the south part and two cases at the north part of the town—the public health of the town is good.

Very respectfully,

ERNEST J. PERRY,

Health Officer.

RUTLAND, VT., Sept. 13, 1893.

DR. HAMILTON.

Dear Sir—My duties as health officer of the towns of Mendon and Clarendon the past year have been light. Attention, on complaint of parties interested, was given to a matter of drainage in North Clarendon village. No contagious disease was reported to myself or the selectmen in Clarendon up to September 1.

In Mendon contagious sore throat, perhaps diphtheria, appeared in the family of William Sargent, consisting of father, mother and eleven children, and all had it in mild form.

No other cases of contagious disease have been reported to me in Mendon.

Yours respectfully,

O. J. GILCHRIST, M. D.,

Health Officer.

DANBY, VT., August 25, 1893.

DR. HAMILTON.

Dear Sir—In making out my report as health officer for the towns of Mt. Tabor and Danby, I would say that we have had no epidemic proper within a year of contagious or infectious diseases. The general health of both towns has been exceptionally good (distressingly so). In February, 1893, we had a dozen cases of scarlet fever, all mild; no deaths. We have been visited with the prevailing catarrhal influenza. Last fall we had the usual diarrhoea of infants and children, and one fatal case of cholera infantum.

Diseases of the lungs (pneumonia, congestions, etc.) have prevailed to some extent at the customary periods. There have been four cases of diphtheria within the past month; all recovered; though, in one family, where two children had light attacks of diphtheria, one child, about twenty months old, developed diphtheritic croup and died on the fourth day; that was in Mt. Tabor. No other cases have appeared.

I have, by talking and personal attention, succeeded in arousing a feeling among the inhabitants of the necessity of strict attention to the sanitary conditions around each family, and so contributed to the general well being of the towns. Hoping this is satisfactory, I am,

Yours truly,

F. E. WHIPPLE,

Health Officer.

FAIR HAVEN, VT., August 16, 1898.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—I beg to submit the following report as to the sanitary condition and public health of the town of Fair Haven :

At present the public health is very good, and the general sanitary condition is, on the whole, pretty fair.

During the year we have been comparatively free from infectious and contagious diseases, having been only notified once by a physician of such a disease, that being a case of typhoid of a mild type, and did not spread.

(I would say here that it would be well if the physicians generally would be readier to report such cases to the health authorities. As yet I think there is a good deal of laxity in this respect.)

There was one case of death from typhoid, due to hyperpyrexia, with a mild case following in the same household. The well being in doubtful proximity to the outbuildings, I had it filled up, and the house is now supplied with city water.

Aided by the trustees of the village, I have been able to abate some nuisances, and to impress on the people to some extent the importance of cleanliness in and around their premises.

In conclusion, I would say that, taking everything into consideration, the public health of the town is in a satisfactory condition. I beg to remain,

Very truly yours,

E. G. ROBERTS,

Health Officer.

HUBBARDTON, VT., August 24, 1898.

Secretary State Board of Health.

Dear Sir—The sanitary condition of the town of Hubbardton was never better than at the present time. The public health is good ; in fact, there is no sickness of any kind. We have had very few deaths this year—five in all. The deaths have been all old people, except one child, who died of diphtheria. There have been two cases of diphtheria and one of canker rash. There was a good deal of sickness during the winter from what seemed to be a mild form of canker rash, but no deaths. But since the warm weather commenced, we have had no sickness whatever.

E. J. GANSON,

Health Officer.

WEST RUTLAND, VT., August 22, 1893.

Secretary State Board of Health.

Sir—There are few inhabitants in the town of Ira, and they are widely scattered. There have been no epidemics. There has been a single case of diphtheria. There has been very little sickness throughout the town of Ira.

Respectfully,

CARROLL B. ROSS,

Health Officer.

MIDDLETOWN SPRINGS, VT., Sept. 11, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Doctor—Yours of the 9th instant at hand. In reply I would say that the general sanitary condition of this town is good. We had a little difference of opinion in regard to what constituted neatness about a cheese factory (*i. e.*, the directors of said factory and I did), but they have cleaned up now and put their grounds in fair shape, better as regards odors than ever before. The general health of the public is good (distressingly so!); have had no cases of contagious or infectious diseases the past year, with the exception of whooping cough last winter and spring. Have had a few cases of cholera morbus and cholera infantum (none of which terminated fatally, however) this summer.

Respectfully yours,

A. C. NORTON,

Health Officer.

MECHANICSVILLE, VT., Sept. 26, 1893.

J. H. HAMILTON, M. D., Secretary.

Dear Doctor—Dr. Cootey has been West since the 7th of August, and will not be back until next month. I have been taking his practice in his absence.

His wife tells me there has been no epidemics during the year, and that the general health of the town of Mt. Holly has been good.

There is one case of typhoid fever in town now, the only one during the year, I think.

The general condition of Mt. Holly is good. I am unable to make out a report, as I know not what the requirements are.

Very truly yours,

G. G. MARSHALL, M. D.

PAWLET, VT., August 15, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health, Richford,
Vt.

Dear Sir—In compliance with the law, I am pleased to make my report as health officer of the town of Pawlet.

The sanitary condition of this town, as far as can be ascertained, without special attention to every house, is excellent. The geographical location is such that few cess-pools can be found and all drainage is good. Abundant rains have flushed all sewers and ditches, kept streams and springs full; therefore drinking water is pure. I have to report very few cases of infectious diseases during the past year—diphtheria, 3; scarlatina, 1; measles, 4. Not one case of phthisis pulmon., and none of typhoid fever reported to me by attending physicians or in my own practice. A few complaints have been made as to location of nuisances, which I have attended to and have adjusted. There seems to be no disease prevailing at the present time. The diphtherja in each case was kept in the house where it started; one case brought here from Massachusetts.

Very truly,

H. L. MANCHESTER, M. D.,

Health Officer.

PITTSFIELD, VT., August 30, 1893.

Secretary State Board of Health.

Sir—No contagious disease has broken out in the town of Pittsfield. This town has been as free from contagious disease as ever known in its history.

F. L. BRIGHAM, M. D.,

Health Officer.

PITTSFORD, VT., Nov. 16, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

My Dear Doctor—I am home, after an absence of several weeks, and find yours in regard to the report of the health officer to September 1.

I regret exceedingly that I am not able to give a satisfactory report. I had trouble at first in obtaining reports from the other physicians in town, so that my records were very incomplete.

The following table gives the matter as nearly correct as I can get it:

	CASES.	DEATHS.
Diphtheria	3	..
Dysentery	4	..
Measles	2	..
Phthisis .....	..	1
Scarlatina	5	1
Typhoid fever.....	10	1

I shall have no trouble in the future in sending the reports of cases as they come in from week to week.

Yours truly,

H. H. SWIFT,
Health Officer.

POULTNEY, VT., August 23, 1893.

DR. J. H. HAMILTON, Secretary.

Dear Doctor—I would respectfully submit the following brief report as health officer for the past year:

The sanitary condition of the town is as good as could be expected of a town having hydrant water, but no system of sewerage. Such a system is what our town needs.

Our back yards and alleys, although not quite all that fancy might picture, yet are in far better condition than in former years. The general health of our town has been good; no epidemic has started and secured a foothold as to cause alarm. There have been eight cases of diphtheria, three fatal. One of cerebro-spinal meningitis, fatal; measles, three, none fatal; scarlet fever, five cases, none fatal. Whooping cough has prevailed during the winter and spring, but no cases were followed by the sequela which sometimes occurs in this trouble.

The diphtheria which we had could be traced to out-of-town cases. The cases occurred in three families. The first two caught it by taking care of relatives in Hampton, Washington county, N. Y., and in Castleton, Vt. The other was a physician, who became inoculated while taking care of cases in Hampton, N. Y.

There have been no other cases of contagious diseases, and I am happy to inform you that the sanitary outlook of our town is encouraging, owing to the general willingness of the people to co-operate with the Board of Health in eradicating all sources of contagion.

Yours very truly,

E. D. ELLIS, M. D.,
Health Officer.

PROCTOR, VT., August 24, 1893.

J. H. HAMILTON, M. D.

Dear Doctor—The general sanitary condition of the town of Proctor is fairly good. We have had comparatively very little sickness during the past six months. With the exception of four cases of diphtheria and one of scarlet fever, we have had but little to startle

the people. The diphtheria cases occurred simultaneously in the most thickly populated tenement district of our village. The cause seemed very apparent, as the first two children had been playing close about an old slop drain at the time, and immediately after it was dug up by the father of one of the girls. I at once instituted most rigid quarantine, keeping watchmen about these two houses day and night for about two weeks. We had one death, but we were rewarded by the disease not spreading.

I wish to acknowledge the hearty support of the selectmen of the town and of the trustees of the village, and, I may say, of the whole community

Following are the number and kind of cases of contagious diseases since last January:

	CASES.	DEATHS.
Cerebro-spinal meningitis.....	2	1
Diphtheria	4	1
Erysipelas	2	1
Typhoid fever.....	4	..
Membraneous croup ..	2	2
Scarlet fever	1	..
Whooping cough	50	..

Respectfully submitted,

H. L. NEWELL, M. D.,

Health Officer.

RUTLAND, VT., Sept. 5, 1893.

DR. J. H. HAMILTON, Richford, Vt.

Dear Sir—The following is the report for the last five months:

CONTAGIOUS DISEASES REPORTED.

DISEASES.	April.	May.	June.	July.	August.	Total.		Families.
						Cases.	Deaths.	
Croup, membraneous—Cases.....	1	..	..	..	1	..	1	..
Deaths.....	..	..	..	..	..	..	1	..
Diphtheria—Cases	7	3	2	..	3	20	..	13
Deaths.....	1	..	..	..	1	..	2	..
Measles—Cases.....	..	3	..	1	1	5	..	5
Deaths.....	..	..	..	..	..	..	..	..
Scarlet fever—Cases.....	14	9	11	2	5	41	..	34
Deaths.....	..	..	..	..	..	..	..	..
Typhoid fever—Cases.....	1	..	..	..	16	17	..	11
Deaths.....	1	..	..	..	..	..	..	1
Typho-malarial fever—Cases.....	..	1	..	..	..	1	..	1
Deaths.....	..	..	..	..	..	..	..	1
Whooping cough—Cases.....	..	6	..	..	3	9	..	3
Deaths.....	..	..	..	..	..	..	..	..
Total—Cases.....	22	28	13	3	28	94	..	68
Deaths.....	1	3	..	..	1	..	..	5

DEATHS REPORTED.

DISEASES.	Male.	Female.	American.	Foreign.	Under 1 year.	1 to 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 100.	Total.
Apoplexy	1	1	1	1												1
Accidental	5	1	3	3	4	1		1	1	1	1	1	1			7
Cancer	1	1	4	1					1							3
Cholera infantum	3	4	7		6	1										7
Cholera morbus	1	1	1	1					1			1	1			1
Consumption	4	4	3	3	5	1			2	1	1	2	1			8
Convulsions, puerperal	1	1	1	1			1									1
Croup, membranous	1	1	1	1		1										1
Diarrhoea	1	1		1											1	1
Diphtheria	2	2	2	2			2									2
Diabetes	2	2	2	2							1				1	2
Disease of heart	2	2	2	2					1		1	1	1			4
Disease of liver	1	1		1							1					1
Disease of kidneys	1	1		1					1							1
Disease of brain	1	1		1								1				1
Fever, typhoid	1	1	1						1							1
Fever, typho-malarial	1	1	1						1							1
Gastritis	1	1	1						1							1
Hemorrhage, cerebral	1	1	1											1		1
Inanition	1	1	1	1	1						1					2
Intestinal obstruction	1	1	1												1	1
Jaundice	1	1		1							1					1
Meningitis	1	1	1				1									1
Old age	3	2	2	1												3
Paralysis	3	3	1	5									4	2		6
Peritonitis	2	2	1	1			1		1		1					2
Pneumonia	5	5	7	3	1		1	1	1	2	1	2	1			10
Pyemia	1	1	1							1						1
Premature birth	1	1		2												2
Rheumatism	1	1		1								1				1
Total	35	40	45	30	10	4	3	4	9	7	9	8	11	4	6	75

The following is a sample of notice sent to the free library and schools:

CITY OF RUTLAND, VERMONT.

HEALTH DEPARTMENT.

..... 189..

Mr.....

Dear Sir:

I hereby report to you case
of located at
No. street, Ward.....
in the family of

Respectfully,

.....

Physician of the Board of Health.

The following is copy of notice sent to householders in case of contagious or infectious disease on premises :

CITY OF RUTLAND, VERMONT.

HEALTH DEPARTMENT.

.....189..

Mr

.....

DEAR SIR :

Notice having been received at this office that you have a case of in your house, take notice, and govern yourself accordingly, that you, and each and every person, child, cat, dog, article or thing, within your house or premises, are and is under quarantine.

You will see that no one is allowed to depart from or enter into your house, or part of your house, or premises, in which there is a child or person sick with any contagious or infectious disease, except by permission from the attending physician or the health officer; you will allow nothing to leave your premises until thoroughly fumigated or disinfected, or until the quarantine is raised, except upon permission of the attending physician or health officer; you will see that disinfectants are thoroughly and constantly used, and that every precaution is taken to prevent the spread of the disease. Disobedience of this order will be punished as provided by the law.

It is to be hoped that you will take the precautions in the premises to which your attention is herein directed.

Respectfully yours,

.....

Health Officer.

There has not been an epidemic of any disease. Although we have had many cases of scarlet fever, they have been scattered, and with but few exceptions, there has been but one case in a family. They have been thoroughly quarantined, posted, and everything done to prevent the spread that could be. There is at the present time a number of cases of typhoid fever, caused in most cases by improper sewerage and local filth. In April last I recommended to the board of aldermen the need of a house to house inspection, in order that we might have a record of the condition of each house in the city, but they would not grant it. I have not been able to inspect each house, but have tried to whenever there have

been any complaints, or when word has come to me. The sewerage of the city, as a whole, is in a very poor condition. The aldermen are trying to remedy it as fast as possible.

Hoping that this may meet with your approval, I remain,

Yours,

WILLIAM M. STEARNS,
Health Officer.

RUTLAND, VT., August 23, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health, Richford, Vt.

Dear Sir—In compliance with the law regarding the duties of health officers, I report to you that the sanitary condition of the town of Rutland is in a very satisfactory state. There has not been a case of contagious disease reported in the town since May 1st. At that time my attention was called to the fact that there was a number of cases of scarlet fever in the city, and that they appeared to be on the route of a certain milkman. I went to his place in the town, situated about three miles from the city, and found a lady member of the family sick with a disease which her physician called tonsilitis. I also found this milkman convalescing from what was termed the same. Upon close examination, I found some desquamation on the hands of both patients. I had also learned from another source that the milkman had delivered milk at a house in which were some cases of scarlet fever. I called the president of your board to see the cases with me, and he concurred with me in my diagnosis, that they were undoubtedly cases of scarlatina.

As nearly as I can determine, there were about twenty-five cases of scarlatina traceable to this milkman as the carrier of the contagion, but in all probability you will get a report from the city health officer as to the exact number that originated from this source.

I quarantined the patients, and prevented the sale of milk until such time as I deemed it to be safe, and by the very vigorous precautions used by the physicians in charge of the city cases to prevent its spread, what might have proven a serious epidemic of scarlatina was averted.

Sincerely yours,

J. H. REILLY,
Health Officer.

RUTLAND, VT., Sept. 8, 1893.

DR. J. H. HAMILTON, Richford, Vt.

Dear Sir—Yours received; would say that I have not been in Shrewsbury for the past five months, and have received no report during that time; therefore, could not make any report that would be satisfactory.

Yours truly,

GEO. RUSTEDT, M. D.,
Health Officer.

SUDBURY, VT., August 29, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—Not having any suitable blanks for my report, I would simply state that the sanitary condition of this town is moderately good.

There have been three cases of enteric fever in one family. One other family was infected with diphtheria—four cases—but suitable precautions being taken, the disease did not spread.

Respectfully yours,

G. W. CAMPBELL, M. D.,
Health Officer.

TINMOUTH, VT., August 31, 1893.

Secretary State Board of Health.

Sir—The general health of the inhabitants of this town is very good. No deaths by contagious diseases thus far.

DE FOREST DOTY,
Health Officer.

WEST RUTLAND, VT., August 22, 1893.

Secretary State Board of Health.

Sir—During the time of present officer there has been no extended epidemic. The general health of the town has been fairly good.

There have been nine cases of diphtheria, with two deaths. This outbreak occurred in an outlying district, and did not reach the village. There have been ten cases of scarlet fever, with three deaths. These deaths took place in children, aged $2\frac{1}{2}$, 3 and $3\frac{1}{2}$ years, and occurred within the first twenty-four hours of the disease.

There has been no case of measles reported to me, and I have seen none.

There has been reported one case of typhoid fever, which proved to be an error in diagnosis.

I have no means of ascertaining the total number of deaths or births. I think the death rate will be more than usual, on account of the greater number of accidents.

Respectfully,

CARROLL B. ROSS,
Health Officer.

WASHINGTON COUNTY.

BARRE, Vt., August 26, 1893.

Secretary State Board of Health.

Sir—My annual report for the town of Barre has some conditions to note which are of vital importance to the people of Graniteville (a small village at the quarries). There are, it is stated, nearly thirteen hundred inhabitants. There is no sewerage system, and no water to operate one with should it be placed. The village is situated along a small stream, which is slow and marshy. The water closets in many, if not most, cases are in close proximity to the wells from which the drinking water is taken. The houses, the majority of which are small, are overcrowded with boarders; hence the locality has heretofore furnished more cases of typhoid fever than is commensurate with its population. To prevent this a system has been undertaken of vaulting every water closet and keeping dry earth in quantities sufficient to absorb all moisture and cleaning the vaults as often as necessary. There are only two cases of typhoid fever as yet in Graniteville.

Respectfully,

C. F. CAMP.
Health Officer.

BARRE, Vt., August 26, 1893.

Secretary State Board of Health.

Sir—The annual report of the health officer for the village of Barre is rather devoid of anything of interest, other than general good health of the people. No epidemic has occurred within the village during the year. The sanitary condition is very good, the village having two systems of sewerage, one for the surface water; another deep sewer, into which no surface water enters. It is closed, so no gases escape through manholes left to catch surface water.

The following circular was issued by the Board of Health:

HEALTH DEPARTMENT.

To.....

You are hereby notified that the condition of the..... on..... street, owned or occupied by..... has become a nuisance, and you are this day ordered to abate the same at once, agreeable to Art. 5, Secs. 9 and 10, Village By-laws.

By order of bailiffs.

.....Health Officer.

Citizens }
Complaining, }

Barre, Vt.,189..

The greatest drawback the village suffers from is people keeping swine within the midst of the thickly-settled portions of the village.

The village suffers again by not having proper by-laws. Those in existence have had no revision since the village was organized.

Respectfully submitted,

C. F. CAMP,
Health Officer.

CABOT, VT., August 31, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Sir—In compliance with the law, I have to report that since my appointment there has not been a case of contagious disease in this town, and that there has been but little sickness during that time.

Respectfully yours,

S. L. WISWELL,
Chairman of Cabot Board of Health.

EAST CALAIS, VT., August 31, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—I have the pleasure to report that the town of Calais has been uncommonly exempt from all contagious forms of disease during the past year.

To my knowledge there has been one death from puerperal fever : two deaths from pneumonia.

La grippe was very prevalent during the winter and spring, leaving behind many cases of nervous prostration and heart failure.

At the present writing I have one case of typhoid fever, with no evidence of how it originated. It is in a very nice family, and everything seems to be in a good sanitary condition.

For want of blanks, or unfamiliarity with the law, physicians from adjoining towns have failed to report cases which they have attended in this town ; so I am unable to make a full report of all cases of sickness and, perhaps, deaths in town during the year.

Will you send me some Nos. 4 and 5 circulars, also some blanks of "Report of Physician" to health officer.

Very respectfully.

GEO. H. GRAY, M. D.,
Health Officer.

WATERBURY, VT., August 21, 1893.

J. H. HAMILTON, M. D.

Dear Doctor—In pursuance of your request, I beg leave to report that our town, and also the town of Duxbury, have been free from

contagious disease to any extent during the last year. The sanitary condition is good also. People are willing to abide by the new law, and I have had no trouble in enforcing it.

Yours respectfully,

W. F. MINARD,

Health Officer.

MARSHFIELD, VT., August 28, 1898.

J. H. HAMILTON, M. D., Secretary State Board of Health, Richmond, Vt.

Dear Sir—Pursuant to Act 82, Section 7, Laws of 1892, and in reply to your favor of the 15th instant, I will say that I consider the sanitary condition of the town of Marshfield full up to the average of towns in this section. During the past six months there have been two cases of diphtheria of a mild type, only one of which originated in town. I am informed that in a certain section of the town there have been a few cases of whooping cough, but not of sufficient severity to require other than domestic treatment. So far as I know, these have been the only cases of contagious disease in town during this time. Isolated cases of filth, nastiness and total disregard for all sanitary conditions exist here, as in all localities, but in general I think the people are watchful of their water supply, drains and other sources of disease and liberal in the use of disinfectants.

No notice of existing disease has been received from other physicians, and no complaint has been made concerning the sanitary condition, except in two instances, and in these it was clearly evident that something besides fear for the public health prompted the complaints.

Much may yet be accomplished to improve the sanitary condition of this town, but I think it compares very favorably with that of the towns throughout the State.

Respectfully submitted,

H. S. CARVER, M. D.,

Health Officer.

MONTPELIER, VT., August 28, 1898.

Secretary State Board of Health.

Sir—I herewith present my report of the sanitary condition of the village and town of Montpelier, in accordance with Section 7 of Act No. 82 of the Laws of 1892 :

The general healthfulness existing since January, 1898, is quite unprecedented. Only five cases of contagious disease have been reported—three of scarlet fever, one of diphtheria and one of measles ; no deaths.

Deaths from other causes : Apoplexy, 7 ; accident, 2 ; Bright's disease, 5 ; consumption, 5 ; cancer, 5 ; cholera infantum, 1 ; croup, 1 ; dropsy, 2 ; drowning, 1 ; disease of the heart, 1 ; heart failure, 1 ; meningitis, 3 ; pneumonia, 9 ; peritonitis, 1 ; suicide by hanging, 1 ; septicæmia, 1 ; unknown, 2—total, 47.

Comparative statement : 1891, number of deaths from January to August 1, 66 ; 1892, number of deaths from January to August 1, 67 ; 1893, number of deaths from January to August 1, 47.

Town of Montpelier : Population, 5,000 ; total valuation, 1892, \$3,600,000 ; number of scholars in public schools, 650 ; number of teachers in schools, 19.

The village was never more cleanly than at the present time, all forms of debris being sedulously disposed of.

With our present popular notions of cleanliness, the knowledge people have of the importance of preventive measures, the inexhaustible supply of water from Mirror lake, the supply of pure spring water from sources around the village, and our superb system of sewerage, it seems as if an epidemic of contagious disease could almost never occur.

What I have said regarding the healthfulness of the town of Montpelier holds good in regard to Berlin. There has been no epidemic. Being largely a farming community, there are more sink spouts and open drains, as well as overland privies. Nevertheless, there has been but little sickness.

Yours respectfully,

D. G. KEMP,

Health Officer.

MORETOWN, VT., August 28, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—In accordance with Act No. 82 of Laws of 1892, I herewith make a report of the sanitary condition and public health of the town of Moretown :

The sanitary condition of the town is a good average of the towns of the county. The people seem to take an interest in this respect, and are careful to take great care of the filth and sink holes about buildings and outhouses and proper precautions in the burial of all carrion, etc. Our water supply is good, and we scarcely ever have any typhoid or diphtheria, except what is imported from other sources, especially diphtheria.

The general health for the last year has been a good average ; have had no epidemics. There have, in the last month, been several cases of dysentery, about equal in adults and children ; no deaths, as yet, from the disease. We have not had any measles or scarlatina, no diphtheria, in the last year. There are now two cases of typhoid fever in town. One came from the town of Worcester—a young man who had been there at work through the season ; cannot find out if there was any typhoid in the neighborhood. The

other undoubtedly originated in town. Two years ago, on the same farm, a man had what I called a light case of typhoid. The man who has it now has been there about a year. I have been unable to find any cause to assign it to, unless not being clean in and about the house.

This is all I have to report at present. If you have any questions to ask, I will endeavor to answer them.

Respectfully,

JAMES HAYLETT,

Health Officer.

PLAINFIELD, VT., August 14, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—There is much work to be done before the general sanitary condition of the town is complete. Have tired of using authority not tangible in this matter of cleaning up waste places, and propose now to wait until certain other matters are cleared up. Have caused to be cleaned and disinfected several waste places, and at the present writing have one slaughter house in the process of removal.

We have had one case of typhoid fever, which resulted fatally.

As regards East Montpelier, the town is in good condition; no cases of contagious disease to my knowledge.

Respectfully submitted,

W. E. LAZELLE,

Health Officer.

ROXBURY, VT., August 25, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—The sanitary condition of Roxbury is excellent. There have been no diphtheria, typhoid fever, nor any contagious or infectious diseases this season.

The extreme height from the sea, the perfect water shed which drains away malarial decomposition, the excellent air and water in this town, make it very healthful.

It should become what nature designed it for: "A quiet, healthful summer resort."

Respectfully yours,

DR. IRA H. FISKE,

Health Officer.

WARREN, VT., August 15, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health, Richford, Vt.

Sir—I would say that the sanitary condition of the town of Warren is very good, and that the state of public health is, and has been for the last five months, exceptionally good, there being no contagious or infectious diseases, and an almost entire freedom from the ordinary summer diseases.

During the months of December, January, February and March there were about seventy-five cases of whooping cough, with one death, viz. : an infant of three months. There were also during the period above mentioned twenty cases of pneumonia, with two deaths.

There has been one death from acute phthisis, following whooping cough, and there is at present one case of phthisis, following pneumonia.

Respectfully,

O. D. GREENE, M. D.,

Health Officer.

SOUTH WOODBURY, VT., August 16, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Dear Sir—There has been no epidemic in the town of Woodbury this year, and the sanitary condition is good. It is a time of general health about here.

Yours fraternally,

R. W. LANCE,

Health Officer.

WORCESTER, VT., August 14, 1893.

Secretary State Board of Health.

Sir—From the time of appointment until now there has been no epidemic of any disease. A few cases have occurred sporadically of the following diseases: Chicken-pox, measles, scarlet fever and diphtheritic sore throat; about half a dozen cases of each disease under treatment.

The deaths which have occurred are as follows: Infant (new born), capillary bronchitis; infant (six weeks old), cholera infantum; child (boy, six months from New York), hydrenecephaloid affection, caused by continued diarrhoea, the result of Bright's disease of the kidneys; child (nine months), tubercular meningitis; woman (thirty-six), septicæmia, puerperal; woman (thirty-nine), pneumonia, at child birth; man and wife, chronic arsenical poisoning.

Inspection: The water supply is by means of lead pipes, and in some instances the water is brought from a distance. Have found but one family where lead poisoning existed, their water being received from a well on a lower level than the house, by means of a pump and lead pipe. The water is now being brought from another source.

No sewerage is required, except as drainage from sink pipes, and these are all in a good healthful state of relief. All offensive rubbish and decaying matter of vegetable and animal origin have been removed, and privy vaults emptied in early springtime.

O. H. PERKINS, M. D.,

Health Officer.

WINDHAM COUNTY.

SAXTONS RIVER, August 29, 1893.

J. H. HAMILTON, M. D.

Dear Doctor—For the town of Athens I have but little to say—not a case of any of the infectious or contagious diseases, and the sanitary condition is good. It is only a farming town, not a village. The water supply is of the best; most every house has running water from a good spring.

Respectfully,

O. W. LOCKE, M. D.,

Health Officer.

BELLOWS FALLS, Vt., August 19, 1893.

J. H. HAMILTON, M. D.

Dear Doctor—In accordance with your request, I send you report of the sanitary condition of the town and corporation. We have had no epidemics of any kind during the past year. There have been a number of cases of measles, but all recovered. No record is kept outside of Bellows Falls. In the Falls all births and deaths and contagious diseases are handed in the office and a record kept.

We have had six cases of diphtheria, with two deaths; no cause could be found that we could discover; scarlet fever, ten cases, with one death. These cases were brought in from outside. The death rate is much less than last year—27 to 42.

The sanitary condition is very good at present, and no particular sickness.

Yours truly,

J. SUTCLIFFE HILL,

Health Officer.

BRATTLEBORO, VT., August 30, 1893.

Secretary State Board of Health.

Sir—In accordance with the law of 1892, defining the duties of the local Boards of Health, I herewith present my annual report of the sanitary condition of the towns of Brattleboro, Dummerston, Marlboro and Guilford.

In general : No severe epidemic of any of the contagious diseases has occurred. Isolated cases of scarlet fever, measles, diphtheria and erysipelas only have been reported, and, as far as known, the general health of the community has been good.

Seventeen physicians practicing in the territory have been furnished with printed abstracts of the laws of Vermont (1892), relating to the State Board of Health, health officers and others and the spreading of contagious diseases.

They have also been supplied with printed blanks to report infectious and contagious diseases to the local health officer, with stamped return envelopes.

Reports have been received from eight physicians since the law went into effect.

BRATTLEBORO.

Measles were imported into Brattleboro the last of December, 1892, by a traveler coming here from the Indian Territory. This resulted in twenty-eight cases in nineteen different families, somewhat widely scattered about the town. No deaths.

Scarlet fever of unknown origin has appeared in a number of families about town ; but as most of these occurred in the fall and early winter, before the blanks were furnished, only one case is reported. No deaths were caused by scarlet fever, as far as known.

One isolated case of diphtheria occurred in March from local causes (defective drainage). No deaths.

One case of diphtheria in June, 1893 ; one death.

DUMMERSTON.

Seven cases of scarlet fever in three scattering families ; no deaths ; origin unknown.

One case of measles in one family ; no deaths ; origin unknown.

MARLBORO.

No reports received from this town.

GUILFORD.

One case of erysipelas reported ; origin unknown ; no deaths.

Summary.

BRATTLEBORO.

	CASES.	DEATHS.
Scarlet fever	1	..
Measles	28	..
Diphtheria	2	1

DUMMERSTON.

Scarlet fever	7	..
Measles	1	..

GUILFORD.

Erysipelas	1	..
------------------	---	----

MARLBORO.

No report of any contagious disease.

SUGGESTIONS.

It is suggested that an attempt be made, through proper channels, to have a law formulated and introduced in the next legislature requiring reports from physicians of births and deaths, with cause of deaths, as this information is now imperfectly collated by district clerks.

Also, that an attempt be made to cultivate the idea of appointing a State sanitary engineer, whose duties would be along the line of preventing disease by disseminating information in regard to water, sewerage, drainage, ventilation, the compulsory proper construction of new houses and other buildings, as people are continually laying foundations for future disease in faulty arrangements for water supply, in its source, methods of conveyance, manner of storage in the house, etc., and in the bad arrangements and make-shifts for water closets, drains, cess-pools, sewers, and ways of disposing of refuse and garbage.

An independent, able man, appointed and paid by the State, could speak with the authority on those matters which no local health officer could possess.

A. I. MILLER, M. D.,
Health Officer.

TOWNSHEND, VT., August 30, 1898.

Secretary State Board of Health.

Sir—Not one case of any of the contagious or infectious diseases specified in the health laws of Vermont has occurred in the towns of Brookline and Townshend during the past year.

The general sanitary condition of these towns is good.

F. L. OSGOOD,
Health Officer.

WILMINGTON, VT., August 20, 1893.

J. H. HAMILTON, M. D.

Dear Doctor—I have no report to make to the State Board of Health from the towns of Somerset and Dover. I know of no contagious diseases having existed in either town during the last year. The sanitary condition of both towns is A No. 1. I hope that I shall not have any other kind of report to make than the one I now submit to you.

Cordially yours,

A. W. RICE, M. D.,
Health Officer.

GRAFTON, VT., August 24, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health, Richmond, Vt.

Dear Sir—There have been in this town two cases of typhoid fever this year. Their origin is unknown. These occurred in April last. Since that time there has been no contagious disease. The general health of the town has been excellent. As to the sanitary condition, but little can be said. Many people are very careful of their premises, while many others are very heedless. The board has been called on to act in one case of bad drainage. This we ordered fixed, and it was done satisfactorily to all parties.

Yours respectfully,

HALL STAPLES,
Health Officer.

WEST HALIFAX, VT., Sept. 1, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—The sanitary condition of the towns of Whitingham and Halifax is good. Both are farming towns; no large villages in either. The inhabitants are, with a very few exceptions, intelligent, thrifty people.

There has been no epidemic. The public health has been far above the average.

Yours, etc.,

J. W. SCUDDER,
Health Officer.

JAMAICA, VT., October 2, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Dear Sir—As health officer of the town of Jamaica, I will say that since my appointment there have been but very few cases of contagious or infectious diseases. There has been one case of diphtheria, terminating fatally.

In case the former health officer, who removed in April, has not reported, I will say that there have been two other fatal cases of diphtheria; also, two cases of scarlet fever, and probably more.

The general health throughout the town has been excellent. The general sanitary condition is good, with a few exceptions.

Any further particulars will be cheerfully furnished at any time.

This report would have been made at an earlier date, but I have been away on a vacation.

Respectfully yours,

C. S. BINGHAM,

Health Officer.

SOUTH LONDONDERRY, VT., August 18, 1893.

J. H. HAMILTON, M. D.

Dear Sir—In accordance with Act No. 82 of the Laws of 1892, I submit the following report for the town of Londonderry:

On the 5th of November, 1892, a child of Nelson Ray died of diphtheria, after an illness of four days. The family consisted of Mr. and Mrs. Ray and two children—a daughter of eleven years and a son of eight years. Mrs. Ray and the son both were very sick at the time, but both recovered. The disease assumed a malignant form. The daughter of Mr. Caleb Dean, a neighbor, went there to nurse them. She, too, took the disease, went home, was very sick, but recovered after eight days. A nephew of hers, residing in the family, was taken with it and died the fifth day. No more of the family had it. This child was aged one year and eight months. Following this Mr. E. A. Cudworth, a lawyer, in whose family the disease next made its appearance, had two children—a son of twelve years and daughter of ten years. Both were taken very sick and died. Mr. Cudworth took from them the disease, and was very sick for many days. The disease assumed a paralytic type, and although he recovered, so that he is able to go to his office, he has not fully recovered yet. Soon after the death of the Cudworth children the disease made its appearance in the family of Mrs. W. W. Pierce, a widowed lady. One daughter, aged nine years, after five days, died. On January 7, 1893, the wife of Mr. Sem Cobb, residing in the remote western part of the town, was reported as having the diphtheria, and was attended by a physician from out of town. I immediately took measures to prevent the spread of the disease. After a few weeks' illness she died, aged

twenty-three years. She was removed to Jamaica for burial by permission. There were a few other cases in a mild form, but no more deaths. No other infectious disease has made its appearance in town. We have had some difficulty in prevailing upon the community to take proper measures to remove dead animals and other like nuisances that engender and are fruitful means for the disseminating of disease, but think I shall be able to educate them to comply with the spirit as well as the letter of the law.

Aside from the above, the sanitary condition of the town is and has been very good. No other prevailing disease has appeared among us.

All the foregoing is respectfully submitted.

If there is any other information or specification which you desire, if you will make it known to me, I will give the matter due attention, so far as I may be able.

With many thanks for your kindness and patience, I remain,

Very truly yours,

D. H. MARDEN,
Health Officer.

NEWFANE, VT., August 31, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Dear Doctor—As health officer for the town of Newfane, I would report that during the year just ended the only contagious or infectious diseases in town have been four cases of scarlatina. Three of these occurred during the past winter, and one is just now convalescing.

The first two were in the same family, and the first was not discovered until the second came down, when the first was found to be desquamating.

The third case, it was unknown where it was contracted.

The one now under care is a summer visitor, who was taken down soon after coming to this place. In each case I have ordered quarantine and disinfection. There were no cases of typhoid during the year. There was quite an epidemic of influenza during the winter of the gastro-enteric form.

The sanitary condition of the town is good. Our villages are all small, and the drainage is good.

Respectfully submitted,

E. S. WESTON, M. D.,
Health Officer.

PÚTNEY, VT., August 15, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—I have the honor and pleasure of reporting the general sanitary condition and state of health for the town of Putney during the current year as very good. Nothing approaching an epidemic has been seen, and, although cases of diphtheria and scarlet fever have been reported to me, I found, upon investigation, in all instances that the diagnosis was extremely doubtful. In no case was there any secondary appearance or spread of the disease.

I have just received Circular No. 10, issued by your board, and propose to call the attention of the local board to the paragraph on slaughter-houses, there being two in this village not conforming to your requirements. Both are near the highway, and in both hogs are fed on the offal. Personally I believe the latter practice the best way to dispose of same, provided bones are not put in the offal pit; the great source of foul odors being decaying meat from heads of beef allowed to rot in the pig sty.

I should naturally infer that your board must have some reason for promulgating the above paragraph. Would it be too much to inquire the reason? I must confess to ignorance. If properly conducted, a slaughter-house should not be foul. To cart away and bury offal is a tax upon butchers, almost prohibitive, besides being fully as liable (in my opinion) to become a nuisance or the source of water contamination.

Respectfully yours,

E. S. MUNGER,
Health Officer.

JAMAICA, VT., August 31, 1893.

Secretary State Board of Health.

Sir—I can say that, to my knowledge, there have been no contagious or infectious diseases prevalent in the town of Stratton during the year. The public health has been good; very little sickness of any kind.

C. S. BINGHAM,
Health Officer.

NORTHFIELD, MASS., August 29, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health, Richford, Vt.

Dear Sir—I have the honor to submit to you my report as health officer "of the sanitary condition and public health" of the town of Vernon, Vt. :

My commission is dated December 10, 1892, but, through some mistake, was not forwarded to me until April, 1893; consequently

I could not act in a time when a health officer was most needed ; *i. e.*, in an epidemic of scarlet fever, which occurred in January, 1893. This epidemic included only three families, and only seven children had the disease. Of this number two died. Vernon is a farming town, with only about five hundred and fifty inhabitants. No manufactories, except a few saw mills. I have inspected the privy vaults and premises of the hotels, school houses and churches, and found the sanitary condition of the privy vaults in one hotel and three school houses bad. Through my suggestions these have been improved.

Excepting the scarlet fever above mentioned, the public health of Vernon has been good since January, 1893.

Very respectfully yours,

N. P. WOOD,

Health Officer.

WARDSBORO, VT., Sept. 11, 1893.

Secretary State Board of Health.

Sir—The health of the town has been very good during the year ending August 31, 1893 ; no contagious diseases.

A. F. BLISS, M. D.,

Health Officer.

WESTMINSTER, VT., Sept. 12, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—I came to this place the 15th of March last, since which time I have visited a majority of all the families, professionally, in this vicinity. Prevailing diseases are of a rheumatic or catarrhal nature ; one case only of typho-malaria, and one of scarlet fever ; one death from fits, complicated with diphtheria (isolated, as per rules) ; no other case followed. The sanitary condition is fairly good. The water supply is generally from springs, and is pure. No prevailing disease at present.

I am a little at a loss as to the scope of my authority in making a report of deaths, since I have no reports from physicians practicing in this town, but living in other towns or in New Hampshire.

I, of course, am unable to report but a small part of the deaths occurring in the township of Westminster. Can you give me any light on the subject ?

Sincerely yours,

J. O. GARMON, M. D.,

Health Officer.

WASHINGTON, R. I., Sept. 15, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—The following is my report as health officer for the towns of Andover, Windsor county, Vt., and Windham, Windham county, Vt. :

I have attended no contagious disease in either of the towns, and have had none reported to me. Have had no unsanitary conditions reported to me, and have made no investigations relative to the same ; consequently my report is—nothing.

Respectfully,

M. A. STEELE, M. D.,

Health Officer.

P. S.—Owing to long drives and the severity of Vermont winters, I have removed this month to Washington, R. I., and consequently it leaves the position of health officer for Andover and Windham vacant. My successor, Dr. G. W. Wilkinson, I would suggest for the vacancy, he being a successful practitioner, etc.

WINDSOR COUNTY.

SPRINGFIELD, VT., Sept. 6, 1893.

J. H. HAMILTON, M. D.

Dear Sir—Absence from home prevented me from complying with the request for a report from the town of Baltimore, of which I am health officer, before the first of this month.

Practically there is no detailed report to make.

Baltimore is entirely a farming community, with no villages, and there has been no case of infectious or contagious disease there within the past year. I have no personal knowledge of any unsanitary condition of anybody's premises in the town. The disposal of sewage is made according to each individual's notion of healthfulness or expediency ; but that this system in any case bears improper relations to the water supply I am not aware.

I am in receipt of appointment as health officer of this town (Baltimore), and of various pamphlets, etc., published by your honorable board.

Very respectfully yours,

WM. F. HAZELTON,

Health Officer.

BARNARD, VT., August 28, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—In compliance with the laws of the State, I report to you the general condition of the town of Barnard, Vt.:

For the past year, as a whole, the health of the town has been good. The sanitary condition is fair; the people resenting any interference of their fancied rights, which makes it not very pleasant to the health officer in discharge of his duty.

Respectfully,

A. JEWETT,

Health Officer.

P. S.—By accident I sent you letter directed Montpelier, Vt. No doubt you will receive it. Look for one there.

BETHEL, VT., August 26, 1893.

DR. J. H. HAMILTON.

Sir—In regard to the present condition of health of the people in Bethel, Vt., and vicinity, I have to say that, with the exception of a mild endemic of measles, there are no cases of a contagious or infectious nature at this time, nor has there been since the comparatively severe endemic of typhoid fever was controlled in May last.

The sanitary condition of this village and that of East Bethel is very good at this time, and I believe the same desirable condition prevails in the farm houses about town.

During the late winter and early spring there were in this village twenty-five cases of typhoid fever, with three deaths. Soon after the first case occurred investigation showed that the cause of the outbreak was the drinking of contaminated water by the employes of the tannery. The water, which was carelessly and unnecessarily drunk by these men, was taken from the branch of White river, just below the outlet of the shoe shop sewer, the sewerage of several dwelling houses, stores, mill, hotel, etc., also opening into the stream above the spot where water was taken to the tannery; which water was taken and intended for mechanical purposes at the tannery, and not intended to be used for drinking purposes at all.

Seventeen of these cases drank this vitiated water. The other cases drank water for several weeks that was taken from the branch above the village sewage outlets.

The only reasonable explanation of the source of infection of the last referred to cases is that on account of the low water and the extremely cold weather there was ice on the bed of the stream and hardly an air hole through the ice from this town to West Randolph. With such a condition of things, the germs contained in

the sewage of that village would doubtless be brought to this town, as there would be no chance for water to become purified running in a channel encased in ice.

Notice was given at once on the discovery of the source of infection, and not a case occurred outside of persons having drank of the branch water. The village supply of ice was taken from the branch before any cases of the disease had appeared, and, of course, above the opening of the sewers. The ice dealer was asked to furnish each of his customers with a printed notice, signed by the health officer, warning them of the danger of eating or drinking the ice or of permitting food or drink coming in contact with the ice.

Said notice was faithfully furnished each customer, but, to the knowledge of the health officer, it has been disregarded by a few of the users of ice, and it would not be surprising to meet with more of the disease next month.

L. M. GREENE, M. D.,

Health Officer.

BRIDGEWATER, VT., August 19, 1893.

J. H. HAMILTON, M. D.

Dear Sir—I send a written report, for on the cards I have there is not space to write out diseases:

	CASES.	DEATHS.
La grippe.....	68	8
Pneumonia.....	10	3
Heart disease.....	4	4
Ulceration of stomach.....	1	1
Paraplegia.....	1	1
Phthisis.....	1	1
Psoas abscess.....	1	1
Cerebro-spinal meningitis.....	1	1
Apoplexy.....	1	1

C. O. BOYDEN, M. D.,

Health Officer.

CAVENDISH, VT., August 31, 1893.

DR. J. H. HAMILTON, Richford, Vt.

Sir—I enclose report of cases, as per card. I think you sent me a blank, but I fail to find it. I was away during the part of August, and the matter escaped my attention on my return. There has been no epidemic. The cases of tonsillitis, which were all in one family, were quarantined; also the case of measles. The scarlet fever was imported from Boston and confined to one house; quarantined and thoroughly fumigated and disinfected; no other cases.

I have endeavored to see that sink and other drains were kept clean and in proper condition ; and, so far as infectious and contagious diseases are concerned, we have been quite free from sickness.

Yours,

E. M. SHURTLEFF, M. D.,

Health Officer.

CHESTER DEPOT, VT., August 18, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—In writing to you of the sanitary condition and public health of Chester, I can report that the year ending with the present month has been a year of comparative health. No serious disease has been specially prevalent, and no rare or strange disease has come to my notice. Early in the year scarlet fever of mild form appeared in town. Isolation and disinfection were practiced, and the disease limited to three cases in one house.

A few cases of measles were present in Factoryville in June.

In a portion of Chester, called Gassetts, there has been a mild epidemic of whooping cough. We have no malaria in town, and lately very little typhoid fever.

During the winter of 1892 and 1893 influenza was comparatively rare. Diphtheria has not visited us during the past year, but acute tonsillitis prevailed quite extensively in July and August.

The sanitary condition of our town compares favorably with the sanitary condition of other towns of the same size, but it is especially in towns of this size and smaller, rather than in the larger towns, that too little attention is given to the care of the water supply, privy vaults, sinks and drains. As frequently as possible, in season and out of season, we preach and practice the gospel of cleanliness. During the past year especial attention has been given to the care of water closets connected with school houses. Every school closet in town has been repaired, thoroughly cleaned and disinfected (or deodorized). The importance of proper ventilation has frequently been mentioned to teachers, and when advisable, methods of ventilation suggested.

Our water supply is wholly from wells and springs ; some good, some bad, some indifferent.

We are inclined to find more fault with the pipes through which the water flows, and the receptacles in which it is held, than with the water itself. In the selection and care of pipes and tubs there is room for vast improvement.

We have no system of sewerage. Waste matter is generally disposed of in cess-pools and by surface drains, and, in a few cases, by pipes to a running stream.

Yours,

WALTER L. HAVENS, M. D.,

Health Officer.

HARTLAND, VT., August 28, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health, Richmond, Vt.

Dear Doctor—There is less sickness in the town of Hartland than is common at this time of the year. There are no epidemics nor any cases of contagious diseases known to me at this time. The water supply at North Hartland last winter was defective, and there were some cases of typhoid fever doubtless due to that cause.

Yours respectfully,

D. F. RUGG,
Health Officer.

LUDLOW, VT., August 30, 1893.

J. H. HAMILTON, Secretary State Board of Health.

Sir—In accordance with the laws of this State, I hereby make my annual report :

The health of the inhabitants of this town for the past year has been unusually good. There have not been any cases of typhoid fever or scarlet fever ; puerperal fever, one, who died ; erysipelas, none ; measles, none. There have been a few sporadic cases of diphtheria, with one death ; some diphtheritic sore throat. During the months of February and March there were a number of deaths of elderly people, who died of catarrhal pneumonia. I think the sanitary condition of the town good. Whenever the Board of Health has asked to have any nuisance removed, it has been done cheerfully.

Respectfully yours,

GEO. E. LANE, M. D.,
Health Officer.

NORWICH, VT., August 31, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—In compliance with the requirements in Section 7 of Act No. 82 of the Laws of 1892, making it the duty of every health officer to " make to the secretary of the State Board of Health a general report of the sanitary condition and public health of his town," I have to say that for the past eight months the town of Norwich has been almost entirely exempt from diseases of a contagious or infectious nature, as one death from diphtheria about March 1 covers all fatalities of that character. In September of 1892 we had an outbreak of diphtheria in a family living in an isolated neighborhood on the outskirts of the town. The house and surroundings were extremely squalid and filthy. Of the seven who

had the disease, the three youngest children died. No others in the neighborhood were affected. At about the same time, in another quarter of the town, and in a thickly-settled neighborhood, diphtheria broke out, in a tenement occupied by four families. There were four cases, all in one family, and of these two proved fatal. In this case, as in the other, there was no extension of the disease. The public health of the town has been above the usual standard during the summer, and at the present time there is less than the average amount of sickness for August, and there have been no deaths during the month. Norwich has many natural advantages, and its location, soil, water and surroundings are all favorable to the public health. The sanitary condition of the town is excellent. We have no overcrowded tenements, and no factories or other industries, to contaminate the air or pollute the streams. Our population is mostly native, and the majority are well informed in matters of hygienic interest.

S. H. CURRIER, M. D.,
Health Officer.

PLYMOUTH, VT., August 25, 1893.

J. H. HAMILTON, M. D., Secretary, etc.

Sir—For the year past we have had but little sickness. I have been in town forty-nine years, and never have known so little sickness in that time as for the year past. Last spring we had considerable of what has been called the grip and catarrhal pneumonia. I had a number of cases in old people, and, contrary to my expectations, they all recovered; while a year ago last spring a number died in from two to four days. I lost one child seven months old in September with cholera infantum, and in the winter I lost an old man; he did not know his age, neither did any of his family, and we could not find out to our satisfaction what the matter was with him, any more than old age. We have not had any contagious disease to require my reporting to you for the past year. I can assure you that I lost enough patients in 1892 so that I should not lose any in 1893. In 1892, in this vicinity, there were not enough well people to take care of the sick.

I don't often go to the meetings of the State Medical Society, because I am getting deaf, and it troubles me to hear. I pay my dues and get the reports annually.

I am respectfully yours,

CHAS. A. SCOTT, M. D.,
Health Officer.

FELCHVILLE, VT., August 25, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—The following is the report for the town of Reading for the past year :

	CASES.	DEATHS.
Cholera infantum.....	2	..
Diphtheria.....	2	..
Dysentery.....	1	..
Erysipelas.....	4	..
Membranous croup.....	1	..
Phthisis.....	2	..
Pneumonia.....	8	5
Typhoid fever.....	2	..

Whooping cough, don't know exactly—10 or 12.

The general condition of health is now first-class in town; no signs of typhoid fever or epidemic of bowel troubles.

Very truly,

F. O. MORGAN, M. D.,

Health Officer.

DEERING, ME., August 27, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Dear Doctor—Having been very busy getting ready, moving and settling for the past month, I have not found time to write and resign the position of health officer of the town of Royalton, Vt., which I now do; and, not being able to obtain a successor, I have no one to recommend for the office.

In regard to the general sanitary condition of Royalton: since June I have been away most of the time, but there have been no contagious diseases to my knowledge, and the general public health has been unusually good. The town was in a neat and sanitary condition, to the best of my knowledge.

You will remember that I wrote you last spring that myself and family were having typhoid fever. The analysis of water sent to Washington, D. C., I will enclose, but, although no typhoid germs were found—from sickness I was not able to get specimen of water suspected until after a rain, so the creek that had been stagnant all winter may have been well washed out before obtaining specimen sent to Washington, and it was too late to furnish milk for analysis—yet we still think all our trouble came from the milk.

Yours respectfully,

W. H. GERRISH,

Health Officer.

SPRINGFIELD, VT., Sept. 19, 1893.

DR. J. H. HAMILTON, Secretary State Board of Health.

Dear Sir—I beg to report the sanitary condition of my town as being generally good. The matter of sewer drains might be improved in individual cases, and will be in many when the corporation provides more convenient main drains.

We have had no epidemic of any contagious or infectious disease; have had isolated cases of measles and whooping cough; have had four cases of diphtheria, with one death; have at present four cases of typhoid fever, three of which are in one family.

A. A. HAIG,
Health Officer.

GAYSVILLE, VT., August 30, 1893.

Secretary State Board of Health.

Sir—The sanitary condition of the town of Stockbridge is good. There is no prevailing disease at this time, and there has really been none for more than a year; not a death in town for that length of time from any contagious or infectious disease that I can recall, and I can hardly recall a case of contagious disease that has really been in this town, though there have been a few cases of measles in a secluded portion of Barnard, which, for business convenience, is practically a part of this town.

A few mild cases of cholera morbus in the early part of this month is practically all the sickness of the summer months.

C. C. SMITH, M. D.,
Health Officer.

PERKINSVILLE, VT., August 19, 1893.

State Board of Health.

Sirs—In compliance with Act 82, Laws of Vermont of 1892, I hereby tender my annual report as health officer for the town of Weathersfield, county of Windsor and State of Vermont:

So far as I am able to learn, there has been no epidemic of any contagious disease in town during the past year. On careful inspection I find the sanitary condition of the town, as a whole, very good. I have advocated and insisted upon the careful and constant use of disinfectants about surface drains, cess-pools, water closets, etc., and am more than gratified with the ready co-operation of the public in carrying out these sanitary measures. In making this my report to the honorable board, I wish to remain,

Yours fraternally, etc.,

W. L. HOISINGTON, M. D.,
Health Officer.

WESTON, VT., August 29, 1893.

DR. J. H. HAMILTON, Richford, Vt.

Dear Sir—I do not know what is wanted for a report, but I submit the following table, showing deaths and cause of same:

	1892.					1893.					Total.		
	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.		June.	July.
Births.....	6	1	..	3	4	..	2	..	..	1	3	1	21
Deaths.....	1	..	2	2	2	..	1	3	2	1	1	1	16
Apoplexy.....	..	..	..	..	..	..	..	..	..	..	..	..	1
Pneumonia.....	..	..	..	1	1	..	..	..	..	..	..	..	2
Bronchitis.....	..	..	..	..	..	..	..	2	..	..	..	..	2
Heart disease.....	..	..	1	..	..	..	1	..	..	1	..	..	5
Perforating ulcer of foot.....	..	..	..	..	1	..	..	..	..	..	..	..	1
Hydrocephalus.....	..	..	..	..	..	..	..	..	1	..	..	..	1
Myelitis.....	..	..	..	..	..	..	..	1	..	..	..	..	1
Typhoid fever.....	..	..	..	1	..	..	..	..	..	..	..	..	1
Cancer of stomach.....	1	..	..	..	..	..	..	..	..	..	..	..	1
Senile decay.....	..	..	1	..	..	..	..	..	..	..	..	..	1

No scarlet fever, measles or whooping cough in our town.

Truly yours,

H. H. HOWE,

Health Officer.

WINDSOR, VT., Sept. 2, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Sir—There has been very little sickness in West Windsor since my appointment, and I have had no cases reported to me; two cases of diphtheria, as I reported, and there was scarlatina in its mild form in two families—I think, eight or ten cases, but I saw only part of them.

There have been about a dozen cases of measles and one death from pneumonia, following measles; not a case of typhoid or malarial fevers.

Very truly yours,

DEANE RICHMOND,

Health Officer.

WINDSOR, VT., August 22, 1893.

J. H. HAMILTON, M. D., Richford, Vt.

Sir—I am happy to be able to report that the health of Windsor at the present time is good. There have been two mild cases of

typhoid fever. The diphtheria which prevailed has entirely disappeared. The streets and outbuildings are in good sanitary condition.

Respectfully submitted,

J. D. BREWSTER, M. D.,
Health Officer.

WOODSTOCK, VT., August 30, 1893.

J. H. HAMILTON, M. D., Secretary State Board of Health.

Dear Sir—In response to your notice, I submit the following report of the sanitary condition of our town:

During the winter of 1892 we had very little sickness, with the exception of an epidemic of measles, which was very extensive; probably one hundred and fifty cases, with one death. I am unable to give the exact number, as they were not reported to me.

About the middle of July we had an epidemic of scarlet fever break out. We have had thus far seventeen cases, with two deaths. The source of the contagion, as far as we traced it, was in the milk supplied by one man. It is supposed that his hired man had mild scarlatina and conveyed the poison to the milk.

There is very little sickness besides this; no fever, and very little of the usual summer sickness. There has been a steady improvement in the matter of drainage, and, in fact, in all sanitary measures. The people very generally accept the suggestions of the health officer in a kindly spirit and co-operate with him in all measures taken to improve the sanitary condition of the town.

Very respectfully,

M. H. CHANDLER, M. D.,
Health Officer.

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One vacancy.

KANSAS.

Dr. G. H. T. Johnson, Atchison, President; Dr. J. W. Redden, Topeka, Secretary; Dr. D. C. Jones, Topeka; Dr. J. Milton Welch, Wichita; Dr. D. H. Hill, Augusta; Dr. Frank Swallow, Valley Falls; Dr. J. W. Jenny, Salina; Dr. R. C. Musgrave, Grenola; Dr. W. L. Schenck, Osage City; Dr. R. A. Williams, Olathe.

KENTUCKY.

Dr. Pinckney Thompson, Henderson, President; Dr. J. N. McCormack, Bowling Green, Secretary; Dr. William Bailey, Louisville; Dr. J. O. McReynolds, Elkton; Dr. George Buler, Clinton; Dr. J. A. Lucy, Lexington; Dr. J. M. Poyntz, Richmond.

LOUISIANA.

Dr. S. R. Oliphant, 466 Magazine St., New Orleans, President; Dr. Lucien F. Salomon, 63 Carondelet St., New Orleans, Secretary; Dr. F. Formento, 81 Esplanade St., New Orleans; Dr. H. Bezou, 196 North Rampart St., New Orleans; Dr. C. E. Kells, 12 Dauphine St., New Orleans; Col. J. D. Hill, 110 Carondelet St., New Orleans; Mr. Charles Holloway, 26 Camp St., New Orleans; Mr. T. A. Clayton, 198 Gravier St., New Orleans; Mr. B. M. King, 212 Gravier St., New Orleans; Dr. C. P. Wilkinson, 57 Prytania St., New Orleans.

MAINE.

E. C. Jordan, C. E., Portland, President; Dr. A. G. Young, Augusta, Secretary; Dr. O. A. Horr, Lewiston; Dr. J. O. Webster, Augusta; Hon. Louis Barker, Bangor; Prof. F. C. Robinson, Brunswick; Dr. C. D. Smith, Portland.

MARYLAND.

Dr. Jackson Piper, Townson, President; Dr. C. W. Chancellor, Baltimore, Secretary and Executive Officer; J. Crawford Neilson, C. E., Baltimore; Dr. J. M. H. Bateman, Easton; Dr. John Morris, Baltimore; Dr. George H. Rohé, Health Commissioner of Baltimore City, Baltimore, *ex officio*; Hon. William Pinckney Whyte, Attorney-General, *ex officio*.

MASSACHUSETTS.

Dr. Henry P. Walcott, Cambridge, Chairman; Dr. Samuel W. Abbott, Wakefield, Secretary; Dr. Elijah U. Jones, Taunton; Julius H. Appleton, Springfield; Dr. Frank W. Draper, Boston; Hiram F. Mills, C. E., Lawrence; Dr. Joseph W. Hastings, Warren; J. N. Raymond, Esq, Salem; F. P. Stearns, C. E., Engineer.

MICHIGAN.

Dr. John Avery, Greenville, President; Dr. Henry B. Baker, Lansing, Secretary; Dr. Arthur Hazlewood, Grand Rapids; Dr. Victor C. Vaughan, Ann Arbor; Dr. Henry F. Lyster, Detroit; Dr. John H. Kellogg, Battle Creek; Prof. Delos Fall, Albion.

MINNESOTA.

Dr. Franklin Staples, Winona, President; Dr. Charles N. Hewitt, Red Wing, Secretary; Dr. V. Smith, Duluth; Dr. E. J. Davis, Mankato; Dr. P. H. Millard, St. Paul; Dr. W. H. Leonard, Minneapolis; Dr. J. H. Phillips, Preston.

MISSISSIPPI.

Dr. E. P. Sale, Aberdeen, President; Dr. Wirt Johnston, Jackson, Secretary; Dr. F. W. Dancy, Holly Springs; Dr. D. L. Phares, Agricultural College; Dr. J. M. Taylor, Corinth; Dr. W. F. Hyer, Holly Springs; Dr. John Wright, Sardis; Dr. S. V. D. Hill, Macon; Dr. B. F. Kittrell, Black Hawk; Dr. J. H. Blanks, Meridian; Dr. J. P. Moore, Yazoo City; Dr. Robert Kells, Jackson; Dr. J. W. Bennett, Brookhaven; Dr. R. T. Edwards, Vicksburg; Dr. R. S. Toombs, Greenville.

MISSOURI.

_____, President*; Dr. Albert Merrell, St. Louis, Vice-President; Dr. George Homan, St. Louis, Secretary; Dr. J. D. Griffith, Kansas City, Treasurer; James B. Prather, Maryville; Dr. G. A. Goben, Kirksville; Dr. W. G. Hall, St. Joseph.

*Vacancy.

NEW HAMPSHIRE.

Dr. G. P. Conn, Concord, President ; Dr. Irving A. Watson, Concord, Secretary ; Gov. David H. Goodell, Antrim, *ex officio* ; Att'y-Gen. Daniel Barnard, Franklin, *ex officio* ; Hon. James A. Weston, Manchester ; Dr. John J. Berry, Portsmouth.

NEW JERSEY.

Dr. C. F. Brackett, Princeton, President ; Dr. Ezra M. Hunt, Trenton, Secretary ; F. A. Osborn, C. E., Middletown, Recording Clerk ; Hon. Henry C. Kelsey, Secretary of State, *ex officio* ; Hon. John P. Stockton, Attorney-General, *ex officio* ; Prof. John Smock, State Geologist, *ex officio* ; Dr. E. R. O'Reilly, Dr. Laban Dennis, Newark ; Dr. Franklin Gauntt, Burlington ; Prof. A. R. Leeds, Ph. D., Hoboken.

NEW YORK.

Hon. Thomas Newbold, Poughkeepsie, President ; Dr. Lewis Balch, Albany, Secretary ; Dr. William E. Millbank, Albany ; Dr. Thomas S. Dawes, Saugerties ; Dr. Joseph D. Bryant, New York ; Dr. F. O. Donohue, Syracuse ; Charles F. Tabor, Attorney-General, *ex officio* ; Dr. William M. Smith, Health Officer, port of New York, *ex officio* ; Dr. Maurice Perkins, Schenectady.

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Dr. H. T. Bahnson, Salem, President ; Dr. Thomas F. Wood, Wilmington, Secretary and Treasurer ; Dr. R. H. Lewis, Raleigh ; Dr. J. M. Baker, Tarboro ; Dr. J. A. Hodges, Fayetteville ; Dr. W. D. Hilliard, Asheville ; Dr. J. H. Tucker, Henderson ; Prof. F. P. Venable, Chapel Hill ; J. L. Ludlow, C. E., Winston.

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Geo. F. Goodwin, Attorney-General, Lisbon, President ; Dr. M. O. Teigen, Fargo, Vice-President ; Dr. J. G. Millspaugh, Park River, Secretary.

OHIO.

Dr. Thomas C. Hoover, Columbus, President ; Dr. C. O. Probst, Columbus, Secretary ; Dr. D. H. Beckwith, Cleveland ; Dr. H. J. Sharp, London ; Dr. Joseph L. Anderson, Cincinnati ; Prof. E. T. Nelson, Delaware ; Dr. Simon P. Wise, Millersburg ; Dr. S. A. Conklin, Canton.

PENNSYLVANIA.

Dr. George G. Groff, Lewisburg, President ; Dr. Benj. Lee, Philadelphia, Secretary ; Dr. Pemberton Dudley, Philadelphia ; Dr. Saml. T. Davis, Lancaster ; Dr. J. F. Edwards, Philadelphia ; Howard Murphy, C. E., Philadelphia ; J. H. McClelland, Pittsburg.

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Dr. A. G. Sprague, River Point, President ; Dr. C. H. Fisher, Providence, Secretary ; Dr. P. S. Redfield, Providence ; Dr. H. S. Swan, Bristol ; S. M. Gray, C. E., Providence ; Dr. A. H. Eccleston, Richmond ; Dr. Peter Curley, Newport.

SOUTH CAROLINA.

Dr. J. H. Bratton, Yorkville, Chairman ; Dr. H. D. Fraser, Charleston, Secretary ; Dr. A. P. Wilhite, Anderson ; Dr. T. Grange Simons, Charleston ; Dr. C. R. Taber, Fort Motte ; Hon. Joseph H. Earle, Attorney-General ; Hon. J. S. Verner, Comptroller-General ; Dr. A. A. Moore, Camden ; Dr. James Evans, Florence.

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Dr. J. D. Plunket, Nashville, President ; Dr. James M. Safford, Nashville, Vice-President ; Dr. J. Berrien Lindsley, Nashville, Secretary ; Hon. E. W. Cole, Nashville ; Dr. F. L. Sim, Memphis ; Hon. D. P. Hadden, Memphis ; Dr. P. D. Sims, Chattanooga ; Dr. Daniel F. Wright, Clarkesville.

TEXAS.

Dr. Robert Rutherford, Houston, State Health Officer.

VERMONT.

Dr. C. S. Caverly, Rutland, President ; Dr. J. H. Hamilton, Richford, Secretary ; Dr. O. W. Sherwin, Woodstock.

WEST VIRGINIA.

Dr. Wm. P. Ewing, Charlestown, President ; N. D. Baker, Martinsburg, Secretary ; Dr. Wm. M. Late, Bridgeport ; Dr. George I. Garrison, Wheeling ; Dr. C. T. Richardson, Charlestown ; Dr. B. F. Irons, Pickaway ; Dr. A. R. Barbee, Point Pleasant ; Dr. B. H. Hoyt, Ravenswood.

WISCONSIN.

Dr. Solon Marks, Milwaukee, President ; Dr. J. T. Reeve, Appleton, Secretary ; Dr. G. F. Witter, Grand Rapids ; Dr. A. D. H. Thrane, Eau Claire ; Dr. B. O. Reynolds, Lake Geneva ; Prof. W. W. Daniells, Madison ; Dr. S. C. Johnson, Hudson.

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PROVINCIAL BOARD OF HEALTH OF MANITOBA.

Dr. F. J. Golding, Winnipeg, Secretary.

List of Health Officers.

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ADDISON COUNTY.

Towns, etc.	Name.	Post-office.
Addison	Dr. E. W. Shipman.....	Vergennes.
Bridport	E. G. Blaisdell.....	Bridport.
Bristol.	H. A. Bogue.....	Bristol.
Cornwall.....	E. O. Porter.....	Cornwall.
Ferrisburgh	H. F. Cram*.....	Ferrisburgh.
Goshen	C. W. Peck..	Brandon.
Granville	E. Hubbard.....	Granville.
Hancock	Jas. R. Hamblin. ...	Hancock.
Leicester	W. H. Vincent.....	Orwell.
Lincoln	J. S. Dodge	Lincoln.
Middlebury	M. D. Smith.....	Middlebury.
Monkton.....	O. L. Nimblett.....	Monkton.
New Haven.....	E. D. Hall.....	New Haven.
Orwell	W. H. Vincent.....	Orwell.
Panton.....	N. J. Towsley*....	Panton.
Ripton	H. C. Powers.....	Ripton.
Salisbury	O. M. Bump.....	Salisbury.
Shoreham	W. N. Platt....	Shoreham.
Starksboro	Henry Wade.....	Starksboro.
Vergennes... ..	E. W. Shipman.....	Vergennes.
Waltham	E. W. Shipman.....	Vergennes.
Weybridge.....	B. F. Sutton.....	Middlebury.
Whiting	W. H. Vincent.....	Orwell.

BENNINGTON COUNTY.

Arlington.....	Dr. W. S. Phillips... ..	Arlington.
Bennington.....	Mr. Henry L. Stillson....	Bennington.
Dorset.....	Dr. C. W. Bartlett	East Dorset.
Glastenbury	Mr. German Harrington... ..	Shaft-bury.
Landgrove	C. C. Cook	Landgrove.
Manchester.....	George Smith	Manchester.
North Bennington.	Henry L. Stillson....	Bennington.
Peru	Dr. B. F. Millington	South Londonderry.
Pownal	Mr. Daniel T. Bates	Pownal.
Readsboro.....	Dr. H. S. Wade.....	Readsboro.
Rupert.....	J. M. Moore.....	Rupert.
Sandgate.....	W. S. Phillips.	Arlington.

* Deceased.

Towns, etc.	Name.	Post-office.
Searsburgh	No health officer.	
Shaftsbury	Mr. Frank H. Mattison....	South Shaftsbury.
Stamford	C. D. Houghton.....	Stamford.
Sunderland.....	Dr. W. S. Phillips.....	Stamford.
Winhall	T. A. Flandreau....	Winhall.
Woodford	Mr. Amos Aldrich.....	Bennington.

CALEDONIA COUNTY.

Barnet	Dr. J. M. Gibson.....	McIndoes Falls.
Burke.	H. J. Lane.....	West Burke.
Danville.	N. C. B. Haviland....	Danville.
Groton.	N. S. Eastman.....	Groton.
Hardwick.....	S. E. Darling.....	Hardwick.
Kirby.....	H. S. Calderwood*....	St. Johnsbury.
Lyndon	J. W. Copeland.....	Lyndonville.
Newark.....	No health officer.	
Peacham.	Dr. W. A. Thomas.....	Peacham.
Ryegate.....	G. W. Darling	Ryegate.
St. Johnsbury	G. B. Bullard.....	St. Johnsbury.
Sheffield	S. A. Jones.	Sheffield.
Stannard.....	F. C. Kinney.....	Greensboro.
Sutton.....	J. W. Colby	Sutton.
Walden.....	S. S. Martin.....	East Hardwick.
Waterford	H. S. Calderwood*....	St. Johnsbury.
Wheelock.....	W. A. Weeks.....	Greensboro 4 Cor.

CHITTENDEN COUNTY.

Bolton.....	Dr. O. D. Bemis.....	Jonesville.
Burlington	H. A. Crandall.....	Burlington.
Charlotte.....	W. H. H. Varney....	Charlotte.
Colchester.....	L. F. Burdick.....	Winooski.
Essex.....	U. M. Ferrin.....	Essex Junction.
Hinesburgh.....	H. E. Hunt.....	Hinesburgh.
Huntington	F. D. Falby.....	Huntington.
Jericho	F. C. Cilley..	Jericho.
Milton	L. J. Dixon.....	Milton.
Richmond	H. L. Heath.....	Richmond.
Shelburne	F. R. Stoddard.....	Shelburne.
South Burlington.	H. A. Crandall.	Burlington.
St. George.....	H. E. Hunt.....	Hinesburgh.
Underhill	W. S. Nay	Underhill.
Westford.	Chas. Jenne.....	Westford.
Williston	A. L. Bingham.....	Williston.

ESSEX COUNTY.

Averill.....	No health officer.	
Bloomfield	Dr. J. F. Blanchard.....	Bloomfield.

* Deceased.

Towns, etc.	Name.	Post-office.
Brighton.....	Dr. J. D. Linehan.....	Island Pond.
Brunswick.....	No health officer.	
Canaan.....	Dr. A. Q. Pottle.....	Canaan.
Concord.....	R. T. Johnson.....	Concord.
East Haven.....	H. J. Lane....	West Burke.
Granby.....	R. T. Johnson.....	Concord.
Guildhall.....	N. S. Boyce.	Guildhall.
Lemington.....	N. S. Boyce.....	Guildhall.
Lunenburg.....	A. W. Scott.....	Lunenburg.
Maidstone.....	N. S. Boyce.....	Guildhall.
Norton.....	J. D. Linehan.....	Island Pond.
Victory.....	R. T. Johnson.....	Concord.

FRANKLIN COUNTY.

Bakersfield.....	Dr. E. J. Melville.....	Bakersfield
Berkshire.....	G. S. Goodrich... ..	West Berkshire.
Enosburgh.....	W. R. Hutchinson....	Enosburgh Falls.
Fairfax	C. F. Hawley... ..	Fairfax.
Fairfield.....	W. G. E. Flanders... ..	Fairfield.
Fletcher.....	E. R. Brush.....	Cambridge.
Franklin.. ..	J. B. Hall	Franklin.
Georgia.....	W. Linsley.....	Georgia.
Highgate.....	E. A. Bates.. ..	Highgate.
Montgomery.....	B. W. Davis.....	Montgomery.
Richford.....	R. M. Pelton.....	Richford.
Sheldon.....	E. M. Brown.... .	Sheldon.
St. Albans.....	George Dunsmore....	St. Albans.
Swanton... ..	H. R. Wilder	Swanton.

GRAND ISLE COUNTY.

Alburgh.....	Dr. Frank Ladue.....	Alburgh.
Grand Isle.....	B. Haynes.....	Grand Isle.
Isle La Motte.....	D. E. Moody.....	Isle La Motte.
North Hero.....	G. B. Hyde.....	North Hero.
South Hero.....	O. W. Petty.....	South Hero.

LAMOILLE COUNTY.

Belvidere.....	Dr. George B. Hulburd... ..	Waterville.
Cambridge	J. B. Morgan.....	Cambridge.
Eden.....	W. H. Bacon.....	Eden.
Elmore.....	E. H. Johnson.....	Morrisville.
Hyde Park.....	William W. George... ..	Hyde Park.
Johnson.....	Joel Allen	Johnson.
Morristown.....	C. C. Rublee.....	Morrisville.
Stowe....	W. G. Church.....	Stowe.
Waterville	George B. Hulburd... ..	Waterville.
Wolcott	Fred S. Dillingham... ..	Craftsbury.

ORANGE COUNTY.

Towns, etc.	Name.	Post-office.
Bradford.....	Dr. J. H. Jones.....	Bradford.
Braintree.....	J. H. Mayo.....	West Randolph.
Brookfield.....	V. C. Goodrich.....	Brookfield.
Chelsea.....	S. N. Goss.....	Chelsea.
Corinth.....	Charles N. Fox.....	East Corinth.
Fairlee.....	H. H. Gillette.....	Post Mills.
Newbury.....	H. H. Lee.....	Newbury.
Orange.....	C. F. Camp.....	Barre.
Randolph.....	A. C. Bailey.....	West Randolph.
Strafford.....	F. F. Chaffee.....	South Strafford.
Thetford.....	H. H. Gillette.....	Post Mills.
Topsham.....	Horace L. Watson.....	West Topsham.
Tunbridge.....	E. E. Dean.....	Tunbridge.
Vershire.....	T. G. Simpson.....	West Fairlee.
Washington.....	F. A. Warner.....	Washington.
West Fairlee.....	T. G. Simpson.....	West Fairlee.
Williamstown.....	E. B. Watson.....	Williamstown.

ORLEANS COUNTY.

Albany.....	Dr. J. C. Campbell.....	Albany.
Barton.....	M. F. Prime.....	Barton.
Barton Landing...	E. O. Ranney.....	Barton Landing.
Brownington.....	W. F. Gilman.....	Brownington.
Charleston.....	C. F. Hinman.....	West Charleston.
Coventry.....	F. D. Badger.....	Coventry.
Craftsbury.....	C. W. Dustan.....	Craftsbury.
Derby.....	E. W. Clark.....	Derby.
Glover.....	P. H. Templeton.....	Glover.
Greensboro.....	F. C. Kinney.....	Greensboro.
Holland.....	C. S. Hinman.....	West Charleston.
Irasburgh.....	G. H. Newton.....	Irasburgh.
Jay.....	F. S. Gray.....	South Troy.
Lowell.....	H. H. Hill.....	Lowell.
Morgan.....	E. W. Clark.....	Derby.
Newport.....	C. F. Branch.....	Newport.
Salem.....	No health officer.	
Troy.....	Dr. F. W. Comings.....	North Troy.
Westmore.....	No health officer.	
Westfield.....	Dr. F. S. Gray.....	South Troy.

RUTLAND COUNTY.

Benson.....	Dr. J. P. Newton.....	Benson.
Brandon.....	C. W. Peck.....	Brandon.
Castleton.....	G. A. Roberts.....	Castleton.
Chittenden.....	Mr. Ernest J. Perry.....	Chittenden.
Clarendon.....	Dr. O. J. Gilchrist.....	Rutland.
Danby.....	F. E. Whipple.....	Danby.

Towns, etc.	Name.	Post-office.
Fair Haven.....Dr.	E. G. Roberts	Fair Haven.
Hubbardton.....Mr.	E. G. Ganson.....	Hubbardton.
Ira	Dr. C. B. Ross	West Rutland.
Mendon.....	O. J. Gilchrist.....	Rutland.
Middletown.....	A. C. Norton....	Middletown Springs.
Mount Holly.....	T. A. Cootey.....	Mechanicsville.
Mt. Tabor.....	F. E. Waipple.....	Danby.
Pawlet.....	H. L. Manchester....	Pawlet.
Pittsfield	F. L. Bingham.....	Pittsfield.
Pittsford.....	H. H. Swift	Pittsford.
Poultney.....	E. D. Ellis.....	Poultney.
Proctor	H. L. Newell.	Proctor.
City of Rutland...	W. M. Stearns.....	Rutland.
Town of Rutland.	J. H. Reilly.....	Rutland.
Sherburne.....	C. O. Boyden.	Bridgewater.
Shrewsbury... ..	George Rustedt.....	Rutland.
Sudbury... ..	G. W. Campbell . .	Sudbury.
Tinmouth.....Mr.	De Forest Doty.....	Tinmouth.
Wallingford.....	No health officer.	
Wells..... ..Dr.	Lorin Bromley.....	Granville, N. Y.
West Haven.....	J. P. Newton.....	Benson.
West Rutland....	C. B. Ross.....	West Rutland.

WASHINGTON COUNTY.

Barre.....Dr.	C. F. Camp.....	Barre.
Berlin.....	D. G. Kemp.....	Montpelier.
Cabot	W. E. Goodale.....	Cabot.
Calais.....	G. H. Gray.....	East Cabot.
Duxbury.....	W. F. Minard.....	Waterbury.
Fayston	No health officer.	
Marshfield.....Dr.	H. S. Carver.....	Marshfield.
Middlesex.....	O. A. Hunt.....	Montpelier.
Montpelier.....	D. G. Kemp.....	Montpelier.
Montpelier, East..	W. E. Lazelle.....	Plainfield.
Moretown.....	J. Haylett.....	Moretown.
Northfield	O. O. Davis.....	Northfield.
Plainfield	W. E. Lazelle.....	Plainfield.
Roxbury.....	J. H. Fisk.....	Roxbury.
Waitsfield.....	H. T. J. Howe.....	Waitsfield.
Warren.....	O. D. Green.....	Warren.
Waterbury	W. F. Minard.....	Waterbury.
Woodbury.....	R. W. Lance.....	South Woodbury.
Worcester.....	O. H. Perkins.....	Worcester.

WINDHAM COUNTY.

Athens	Dr. C. W. Locke.....	Saxtons River.
Brattleboro	A. I. Miller	Brattleboro.
Brookline.....	F. L. Osgood.....	Townshend.

Towns, etc.	Name.	Post-office.
Dover.....	Dr. A. W. Rice.....	Wilmington.
Dummerston.....	A. I. Miller.....	Brattleboro.
Grafton.....	Hall Staples.....	Grafton.
Guilford.....	A. I. Miller.....	Brattleboro.
Halifax.....	J. W. Scudder.....	Jacksonville.
Jamaica.....	C. S. Brigham.....	Jamaica.
Londonderry.....	D. H. Marden.....	South Londonderry.
Marlboro.....	A. I. Miller.....	Brattleboro.
Newfane.....	E. S. Weston.....	Newfane.
Putney.....	E. S. Munger.....	Putney.
Rockingham.....	A. W. Rice.....	Wilmington.
Stratton.....	C. S. Brigham.....	Jamaica.
Townshend.....	F. L. Osgood.....	Townshend.
Vernon.....	N. P. Wood.....	Northfield, Mass.
Wardsboro.....	A. F. Bliss.....	Wardsboro.
Westminster.....	J. O. Garmon.....	Westminster.
Whitingham.....	J. W. Scudder.....	Jacksonville.
Wilmington.....	E. T. Titus.....	Wilmington.
Windham.....	M. A. Steele.....	Chester.

WINDSOR COUNTY.

Andover.....	Dr. M. A. Steele.....	Chester.
Baltimore.....	W. F. Hazelton.....	Springfield.
Barnet.....	A. Jewett.....	Barnet.
Bethel.....	L. M. Green.....	Bethel.
Bridgewater.....	C. O. Boyden.....	Bridgewater.
Cavendish.....	E. M. Shurtleff.....	Cavendish.
Chester.....	W. S. Haviland.....	Chester.
Hartford.....	O. W. Daley.....	Hartford.
Ludlow.....	George E. Lane.....	Ludlow.
Norwich.....	S. H. Currier.....	Norwich.
Plymouth.....	O. A. Scott.....	Plymouth.
Pomfret.....	M. H. Chandler.....	Woodstock.
Reading.....	F. C. Morgan.....	Reading.
Rochester.....	W. D. Huntington.....	Rochester.
Royalton.....	W. H. Gerrish.....	Royalton.
Sharon.....	A. C. Sherwin.....	Sharon.
Springfield.....	A. A. Haig.....	Springfield.
Stockbridge.....	C. C. Smith.....	Stockbridge.
Weathersfield.....	W. L. Hoisington.....	Perkinsville.
Weston.....	H. H. Howe.....	Weston.
West Windsor.....	Dean Richmond.....	Windsor.
Windsor.....	J. D. Brewster.....	Windsor.
Woodstock.....	M. H. Chandler.....	Woodstock.

